

Arg Thr Val Ala Ile Ile Gly Gly Phe Leu Val Leu Ala Ser Gly Ala  
 130 135 140  
 Gly Glu Leu Tyr Arg Arg Lys Pro Arg Ser Arg Ser Leu Gln Ser Thr  
 145 150 155 160  
 Gly Gln Val Phe Leu Gly Ile Tyr Leu Ile Cys Val Ala Tyr Ser Leu  
 165 170 175  
 Gln His Ser Lys Glu Asp Arg Leu Ala Tyr Leu Asn His Leu Pro Gly  
 180 185 190  
 Gly Glu Leu Met Ile Gln Leu Phe Phe Val Leu Tyr Gly Ile Leu Ala  
 195 200 205  
 Leu Ala Phe Leu Ser Gly Tyr Tyr Val Thr Leu Ala Ala Gln Ile Leu  
 210 215 220  
 Ala Val Leu Leu Pro Pro Val Met Leu Leu Ile Asp Gly Asn Val Ala  
 225 230 235 240  
 Tyr Trp His Asn Thr Arg Arg Val Glu Phe Trp Asn Gln Met Lys Leu  
 245 250 255  
 Leu Gly Glu Ser Val Gly Ile Phe Gly Thr Ala Val Ile Leu Ala Thr  
 260 265 270  
**Asp Gly**

<210> 272  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 272  
 Met Gln Leu Gly Ser Val Leu Leu Thr Arg Cys Pro Phe Trp Gly Cys  
 1 5 10 15  
 Phe Ser Gln Leu Met Leu Tyr Ala Glu Arg Ala Glu Ala Arg Arg Lys  
 20 25 30  
 Pro Asp Ile Pro Val Pro Tyr Leu Tyr Phe Asp Met Gly Ala Ala Val  
 35 40 45  
 Leu Cys Ala Ser Phe Met Ser Phe Gly Val Lys Arg Arg Trp Phe Ala  
 50 55 60  
 Leu Gly Ala Ala Leu Gln Leu Ala Ile Ser Thr Tyr Ala Ala Tyr Ile  
 65 70 75 80  
 Gly Gly Tyr Val His Tyr Gly Asp Trp Leu Lys Val Arg Met Tyr Ser  
 85 90 95  
 Arg Thr Val Ala Ile Ile Gly Gly Phe Leu Val Leu Ala Ser Gly Ala  
 100 105 110  
 Gly Glu Leu Tyr Arg Arg Lys Pro Arg Ser Arg Ser Leu Gln Ser Thr

115

120

125

Gly Gln Val Phe Leu Gly Ile Tyr Leu Ile Cys Val Ala Tyr Ser Leu  
 130                   135                   140

Gln His Ser Lys Glu Asp Arg Leu Ala Tyr Leu Asn His Leu Pro Gly  
 145                   150                   155                   160

Gly Glu Leu Met Ile Gln Leu Phe Phe Val Leu Tyr Gly Ile Leu Ala  
 165                   170                   175

Pro Gly Leu Ser Val Arg Leu Leu Arg Asp Pro Arg Cys Pro Asp Pro  
 180                   185                   190

Gly Cys Thr Ala Ala Pro Cys His Ala Ala His  
 195                   200

&lt;210&gt; 273

&lt;211&gt; 407

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 273

Ser Asn Glu Ile Leu Leu Ser Phe Pro Gln Asn Tyr Tyr Ile Gln Trp  
 1                   5                   10                   15

Leu Asn Gly Ser Leu Ile His Gly Leu Trp Asn Leu Ala Ser Leu Phe  
 20                   25                   30

Ser Asn Leu Cys Leu Phe Val Leu Met Pro Phe Ala Phe Phe Leu  
 35                   40                   45

Glu Ser Glu Gly Phe Ala Gly Leu Lys Lys Gly Ile Arg Ala Arg Ile  
 50                   55                   60

Leu Glu Thr Leu Val Met Leu Leu Leu Ala Leu Leu Ile Leu Gly  
 65                   70                   75                   80

Ile Val Trp Val Ala Ser Ala Leu Ile Asp Asn Asp Ala Ala Ser Met  
 85                   90                   95

Glu Ser Leu Tyr Asp Leu Trp Glu Phe Tyr Leu Pro Tyr Leu Tyr Ser  
 100                   105                   110

Cys Ile Ser Leu Met Gly Cys Leu Leu Leu Leu Cys Thr Pro Val  
 115                   120                   125

Gly Leu Ser Arg Met Phe Thr Val Met Gly His Leu Leu Val Lys Pro  
 130                   135                   140

Thr Ile Leu Glu Asp Leu Asp Glu Gln Ile Tyr Ile Ile Thr Leu Glu  
 145                   150                   155                   160

Glu Glu Ala Leu Gln Arg Arg Leu Asn Gly Leu Ser Ser Ser Val Glu  
 165                   170                   175

Tyr Asn Ile Met Glu Leu Glu Gln Glu Leu Glu Asn Val Lys Thr Leu  
 180                   185                   190

Lys Thr Lys Leu Glu Arg Arg Lys Lys Ala Ser Ala Trp Glu Arg Asn  
 195                   200                   205

Leu Val Tyr Pro Ala Val Met Val Leu Leu Leu Ile Glu Thr Ser Ile  
 210                   215                   220

Ser Val Leu Leu Val Ala Cys Asn Ile Leu Cys Leu Leu Val Asp Glu  
 225                   230                   235                   240

Thr Ala Met Pro Lys Gly Thr Arg Gly Pro Gly Ile Gly Asn Ala Ser  
 245                   250                   255

Leu Ser Thr Phe Gly Phe Val Gly Ala Ala Leu Glu Ile Ile Leu Ile  
 260                   265                   270

Phe Tyr Leu Met Val Ser Ser Val Val Gly Phe Tyr Ser Leu Arg Phe  
 275                   280                   285

Phe Gly Asn Phe Thr Pro Lys Lys Asp Asp Thr Thr Met Thr Lys Ile  
 290                   295                   300

Ile Gly Asn Cys Val Ser Ile Leu Val Leu Ser Ser Ala Leu Pro Val  
 305                   310                   315                   320

Met Ser Arg Thr Leu Gly Ile Thr Arg Phe Asp Leu Leu Gly Asp Phe  
 325                   330                   335

Gly Arg Phe Asn Trp Leu Gly Asn Phe Tyr Ile Val Leu Ser Tyr Asn  
 340                   345                   350

Leu Leu Phe Ala Ile Val Thr Thr Leu Cys Leu Val Arg Lys Phe Thr  
 355                   360                   365

Ser Ala Val Arg Glu Glu Leu Phe Lys Ala Leu Gly Leu His Lys Leu  
 370                   375                   380

His Leu Pro Asn Thr Ser Arg Asp Ser Glu Thr Ala Lys Pro Ser Val  
 385                   390                   395                   400

Asn Gly His Gln Lys Ala Leu  
 405

&lt;210&gt; 274

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 274

Arg Ser Tyr Met Gln Ser Val Trp Thr Glu Glu Ser Gln Cys Thr Leu  
 1                   5                   10                   15

Leu Asn Ala Ser Ile Thr Glu Thr Phe Asn Cys Ser Phe Ser Cys Gly  
 20                   25                   30

Pro Asp Cys Trp Lys Leu Ser Gln Tyr Pro Cys Leu Gln Val Tyr Val  
 35                   40                   45

Asn Leu Thr Ser Ser Gly Glu Lys Leu Leu Leu Tyr His Thr Glu Glu  
 50 55 60

Thr Ile Lys Ile Asn Gln Lys Cys Ser Tyr Ile Pro Lys Cys Gly Lys  
 65 70 75 80

Asn Phe Glu Glu Ser Met Ser Leu Val Asn Val Val Met Glu Asn Phe  
 85 90 95

Arg Lys Tyr Gln His Phe Ser Cys Tyr Ser Asp Pro Glu Gly Asn Gln  
 100 105 110

Lys Ser Val Ile Leu Thr Lys Leu Tyr Ser Ser Asn Val Leu Phe His  
 115 120 125

Ser Leu Phe Trp Pro Thr Cys Met Met Ala Gly Gly Val Ala Ile Val  
 130 135 140

Ala Met Val Lys Leu Thr Gln Tyr Leu Ser Leu Leu Cys Glu Arg Ile  
 145 150 155 160

Gln Arg Ile Asn Arg  
 165

<210> 275

<211> 155

<212> PRT

<213> Homo sapiens

<400> 275

Ala Phe Ala His Leu Gln Leu Gly Pro Met Trp Lys Leu Trp Arg Ala  
 1 5 10 15

Glu Glu Gly Ala Ala Ala Leu Gly Gly Ala Leu Phe Leu Leu Leu Phe  
 20 25 30

Ala Leu Gly Val Arg Gln Leu Leu Lys Gln Arg Arg Pro Met Gly Phe  
 35 40 45

Pro Pro Gly Pro Pro Gly Leu Pro Phe Ile Gly Asn Ile Tyr Ser Leu  
 50 55 60

Ala Ala Ser Ser Glu Leu Pro His Val Tyr Met Arg Lys Gln Ser Gln  
 65 70 75 80

Val Tyr Gly Glu Val Gln Pro Arg Arg Ala Pro Gly Arg Glu Gly Arg  
 85 90 95

Gln Ala Gly Pro Gly Trp Pro Gly Pro Ser Trp Leu Asp Leu Trp Pro  
 100 105 110

Pro Leu Gly Arg Leu Val Gly Thr Ser Pro Cys Ala Gly Cys Pro Leu  
 115 120 125

Arg Asp Thr Arg Phe Pro Gly Leu Glu Gly Arg Ser Pro Arg Arg Arg  
 130 135 140

Ala Pro Leu Gln Gly Glu Pro Arg Pro Cys Arg

145

150

155

&lt;210&gt; 276

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 276

Met	Arg	Val	Arg	Ile	Gly	Leu	Thr	Leu	Leu	Leu	Cys	Ala	Val	Leu	Leu
1				5				10						15	

Ser	Leu	Ala	Ser	Ala	Ser	Ser	Asp	Glu	Glu	Gly	Ser	Gln	Asp	Glu	Ser
							20		25				30		

Leu	Gly	Phe	Gln	Asp	Tyr	Phe	Asp	Ile	Arg						
							35		40						

&lt;210&gt; 277

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 277

Met	Ala	Arg	Gly	Ser	Leu	Arg	Arg	Leu	Leu	Arg	Leu	Leu	Val	Leu	Gly
1					5			10						15	

Leu	Trp	Leu	Ala	Leu	Leu	Arg	Ser	Val	Ala	Gly	Glu	Gln	Ala	Pro	Gly
							20		25			30			

Thr	Ala	Pro	Cys	Ser	Arg	Gly	Ser	Ser	Trp	Ser	Ala	Asp	Leu	Asp	Lys
							35		40			45			

Cys	Met	Asp	Cys	Ser	Thr	Ser	Cys	Pro	Leu	Pro	Ala	Ala	Leu	Ala	His
							50		55			60			

Pro	Trp	Gly	Arg	Ser	Glu	Pro	Asp	Leu	Arg	Ala	Gly	Ala	Ala	Phe	Trp
							65		70		75		80		

Leu	Phe	Gly	Leu	Glu	Thr	Met	Pro	Gln	Glu	Arg	Glu	Val	His	His	Pro
								85		90			95		

His	Arg	Gly	Asp	Arg	Arg	Gly	Leu	Pro	Ser	Cys	Gly	Ala	Asp	Pro	
							100		105			110			

Val	Thr	Met	Cys	Pro	Leu	Pro	Ala	Gly	Ala	Arg	Pro	Leu	Ile	Ile	His
							115		120			125			

Ser	Ser	Ile	Leu	Glu	Pro	Val	Ser	Ala	Ser	Gln	Thr	Arg	Arg	Glu	Pro
							130		135			140			

Ser	Ser	Ser	Asn	His	Lys	Gly	Gly	Gly	Arg						
							145		150			155			

&lt;210&gt; 278

&lt;211&gt; 207

&lt;212&gt; PRT

<213> Homo sapiens

<400> 278

Gly Thr Ser Phe Leu Asp Pro Thr Leu Ser Leu Phe Val Leu Glu Lys  
1 5 10 15

Phe Asn Leu Pro Ala Gly Tyr Val Gly Leu Val Phe Leu Gly Met Ala  
20 25 30

Leu Ser Tyr Ala Ile Ser Ser Pro Leu Phe Gly Leu Leu Ser Asp Lys  
35 40 45

Arg Pro Pro Leu Arg Lys Trp Leu Leu Val Phe Gly Asn Leu Ile Thr  
50 55 60

Ala Gly Cys Tyr Met Leu Leu Gly Pro Val Pro Ile Leu His Ile Lys  
65 70 75 80

Ser Gln Leu Trp Leu Leu Val Leu Ile Leu Val Val Ser Gly Leu Ser  
85 90 95

Ala Gly Met Ser Ile Ile Pro Thr Phe Pro Glu Ile Leu Ser Cys Ala  
100 105 110

His Glu Asn Gly Phe Glu Glu Gly Leu Ser Thr Leu Gly Leu Val Ser  
115 120 125

Gly Leu Phe Ser Ala Met Trp Ser Ile Gly Ala Phe Met Gly Pro Thr  
130 135 140

Leu Gly Gly Phe Leu Tyr Glu Lys Ile Gly Phe Glu Trp Ala Ala Ala  
145 150 155 160

Ile Gln Gly Leu Trp Ala Leu Ile Ser Gly Leu Ala Met Gly Leu Phe  
165 170 175

Tyr Leu Leu Glu Tyr Ser Arg Arg Lys Arg Ser Lys Ser Gln Asn Ile  
180 185 190

Leu Ser Thr Glu Glu Arg Thr Thr Leu Leu Pro Asn Glu Thr  
195 200 205

<210> 279

<211> 85

<212> PRT

<213> Homo sapiens

<400> 279

Gly Thr Arg Glu Ala Arg Leu Arg Asp Leu Thr Arg Phe Tyr Asp Lys  
1 5 10 15

Val Leu Ser Leu His Glu Asp Ser Thr Thr Pro Val Ala Asn Pro Leu  
20 25 30

Leu Ala Phe Thr Leu Ile Lys Arg Leu Gln Ser Asp Trp Arg Asn Val  
35 40 45

Val His Ser Leu Glu Ala Ser Glu Asn Ile Arg Ala Leu Lys Asp Gly

50

55

60

Tyr Glu Lys Val Glu Gln Asp Leu Pro Ala Phe Glu Asp Leu Glu Gly  
65                   70                   75                   80

Ala Ala Arg Ala Leu  
85

<210> 280

<211> 7

<212> PRT

<213> Homo sapiens

<400> 280

Ala Leu Met Arg Leu Gln Asp  
1                   5

<210> 281

<211> 7

<212> PRT

<213> Homo sapiens

<400> 281

Val Glu Ala Gly Gly Ala Thr  
1                   5

<210> 282

<211> 489

<212> PRT

<213> Homo sapiens

<400> 282

Gly Thr Arg Glu Ala Arg Leu Arg Asp Leu Thr Arg Phe Tyr Asp Lys  
1                   5                   10                   15

Val Leu Ser Leu His Glu Asp Ser Thr Thr Pro Val Ala Asn Pro Leu  
20                   25                   30

Leu Ala Phe Thr Leu Ile Lys Arg Leu Gln Ser Asp Trp Arg Asn Val  
35                   40                   45

Val His Ser Leu Glu Ala Ser Glu Asn Ile Arg Ala Leu Lys Asp Gly  
50                   55                   60

Tyr Glu Lys Val Glu Gln Asp Leu Pro Ala Phe Glu Asp Leu Glu Gly  
65                   70                   75                   80

Ala Ala Arg Ala Leu Met Arg Leu Gln Asp Val Tyr Met Leu Asn Val  
85                   90                   95

Lys Gly Leu Ala Arg Gly Val Phe Gln Arg Val Thr Gly Ser Ala Ile  
100               105               110

Thr Asp Leu Tyr Ser Pro Lys Arg Leu Phe Ser Leu Thr Gly Asp Asp  
115               120               125

Cys Phe Gln Val Gly Lys Val Ala Tyr Asp Met Gly Asp Tyr Tyr His  
130 135 140

Ala Ile Pro Trp Leu Glu Glu Ala Val Ser Leu Phe Arg Gly Ser Tyr  
145 150 155 160

Gly Glu Trp Lys Thr Glu Asp Glu Ala Ser Leu Glu Asp Ala Leu Asp  
165 170 175

His Leu Ala Phe Ala Tyr Phe Arg Ala Gly Asn Val Ser Cys Ala Leu  
180 185 190

Ser Leu Ser Arg Glu Phe Leu Leu Tyr Ser Pro Asp Asn Lys Arg Met  
195 200 205

Ala Arg Asn Val Leu Lys Tyr Glu Arg Leu Leu Ala Glu Ser Pro Asn  
210 215 220

His Val Val Ala Glu Ala Val Ile Gln Arg Pro Asn Ile Pro His Leu  
225 230 235 240

Gln Thr Arg Asp Thr Tyr Glu Gly Leu Cys Gln Thr Leu Gly Ser Gln  
245 250 255

Pro Thr Leu Tyr Gln Ile Pro Ser Leu Tyr Cys Ser Tyr Glu Thr Asn  
260 265 270

Ser Asn Ala Tyr Leu Leu Leu Gln Pro Ile Arg Lys Glu Val Ile His  
275 280 285

Leu Glu Pro Tyr Ile Ala Leu Tyr His Asp Phe Val Ser Asp Ser Glu  
290 295 300

Ala Gln Lys Ile Arg Glu Leu Ala Glu Pro Trp Leu Gln Arg Ser Val  
305 310 315 320

Val Ala Ser Gly Glu Lys Gln Leu Gln Val Glu Tyr Arg Ile Ser Lys  
325 330 335

Ser Ala Trp Leu Lys Asp Thr Val Asp Leu Lys Leu Val Thr Leu Asn  
340 345 350

His Arg Ile Ala Ala Leu Thr Gly Leu Asp Val Arg Pro Pro Tyr Ala  
355 360 365

Glu Tyr Leu Gln Val Val Asn Tyr Gly Ile Gly Gly His Tyr Glu Pro  
370 375 380

His Phe Asp His Ala Thr Ser Pro Ser Ser Pro Leu Tyr Arg Met Lys  
385 390 395 400

Ser Gly Asn Arg Val Ala Thr Phe Met Ile Tyr Leu Ser Ser Val Glu  
405 410 415

Ala Gly Gly Ala Thr Ala Phe Ile Tyr Ala Asn Leu Ser Val Pro Val  
420 425 430

Val Arg Asn Ala Ala Leu Phe Trp Trp Asn Leu His Arg Ser Gly Glu  
435 440 445

Gly Asp Ser Asp Thr Leu His Ala Gly Cys Pro Val Leu Val Gly Asp  
450 455 460

Lys Trp Val Ala Asn Lys Trp Ile His Glu Tyr Gly Gln Glu Phe Arg  
465 470 475 480

Arg Pro Cys Ser Ser Ser Pro Glu Asp  
485

<210> 283

<211> 136

<212> PRT

<213> Homo sapiens

<400> 283

Ile Gln Pro Ser His Ala Ala Leu Leu His Cys Arg Ser Thr Phe Arg  
1 5 10 15

Lys Thr Glu Cys Leu Asp Pro Trp Trp Val Arg Arg Gln Leu Leu Gly  
20 25 30

Met Ala Gly Ile Gly Gly Leu Gln Lys Met Lys Ala Pro His Thr Gly  
35 40 45

Val Leu His Leu Gly Ser Val Trp Val Phe Leu Gly Pro Phe Leu Leu  
50 55 60

Gly Val Gly Tyr Thr Leu Thr Phe Asn Pro Leu Ser Gly Cys Met Ser  
65 70 75 80

Thr Val Arg Trp Leu Asn Ser Asn Ile Thr Ala Asn Arg Thr Leu Ser  
85 90 95

Arg Ser Val Cys His Val Thr Pro Leu His Arg Ser Leu Ser Pro His  
100 105 110

Asp Gly Glu Tyr Leu Arg Gln Met Leu Leu Asn Ser Ser Ser Arg Ala  
115 120 125

Gly Glu Ala Gly Ser Trp Gly Tyr  
130 135

<210> 284

<211> 86

<212> PRT

<213> Homo sapiens

<400> 284

Cys Ser Ser Pro Pro Gly Arg Leu Pro Trp Cys Trp Thr Ala Pro Arg  
1 5 10 15

Thr Leu Gly Lys His Gly Ser Leu Ile Ser Thr Leu Arg Leu Thr Ala  
20 25 30

Pro Leu His Leu Ala Trp Lys Met Met Leu Ser Arg Lys Ala Leu Phe  
35 40 45

Val Leu Leu Asn Thr Pro Val Leu Phe His Ala Leu Glu Gly Arg Leu  
50 55 60

Phe Ser Lys Leu Cys His His His Thr Ile Gln Arg Thr Leu Thr Val  
65 70 75 80

Pro Lys Phe Arg Ser Ser  
85

<210> 285

<211> 75

<212> PRT

<213> Homo sapiens

<400> 285

Arg Ser Pro Thr Ser Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro  
1 5 10 15

Cys Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr  
20 25 30

Ala Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His  
35 40 45

Ala Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro  
50 55 60

Gly Thr Phe His Met Val His Gly Lys Cys Met  
65 70 75

<210> 286

<211> 296

<212> PRT

<213> Homo sapiens

<400> 286

His Asn Thr Ala Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn  
1 5 10 15

Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu  
20 25 30

Cys Arg Thr Cys Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp  
35 40 45

Val Asn Val Trp Glu Ala Ser Gly Asn Arg Ser Gly Gly Val Cys Asp  
50 55 60

Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro  
65 70 75 80

Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys  
85 90 95

Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn  
100 105 110

Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro  
 115 120 125  
 Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly  
 130 135 140  
 Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp  
 145 150 155 160  
 Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Tyr  
 165 170 175  
 His Glu Val Pro Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala  
 180 185 190  
 Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly  
 195 200 205  
 Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Asn Ala Lys Ala Phe Cys  
 210 215 220  
 Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His  
 225 230 235 240  
 Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu  
 245 250 255  
 Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Ala Asn Ile Ile Ser  
 260 265 270  
 Arg Ile Met Asp Gly Gln Arg Met His Leu Ser Asn Pro Gln Ser Trp  
 275 280 285  
 Phe Gly Ile Pro Cys Ser Arg Thr  
 290 295

&lt;210&gt; 287

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 287

Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys  
 1 5 10 15

Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp  
 20 25 30

Ala Cys Lys Pro Cys  
 35

&lt;210&gt; 288

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 288

Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met  
1 5 10 15

Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys  
20 25 30

Ala Gly Ser Cys  
35

&lt;210&gt; 289

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 289

Asn Ile Ser Ser Gln Tyr Cys Ile Leu Lys Ser Leu Glu Met Met Ile  
1 5 10 15

Ser Gly Leu Lys Leu Leu Val Leu Phe Leu Lys Phe Ala Pro Glu Asn  
20 25 30

Tyr Cys Leu Ser Thr Glu Thr Leu Gln Met Pro Asn Arg His Leu Arg  
35 40 45

Leu Ser Lys Ala Thr Cys Tyr Leu Met Lys Cys Leu Leu Pro Ser Tyr  
50 55 60

Phe Glu  
65

&lt;210&gt; 290

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 290

Pro Ile Glu Gly Thr Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg  
1 5 10 15

Pro Thr Arg Pro Gln Arg Met Arg Ser Leu Ile Ser Ser His Pro Cys  
20 25 30

Gln His Leu Leu Leu Leu Leu Leu Leu Phe Leu Ile Leu Ala Ile  
35 40 45

Leu Val Asp Val Lys Trp Tyr Leu Val Leu Phe Ile Cys Ile Ser Leu  
50 55 60

Met Thr Ser Asp Val Glu His Leu Phe Met Cys Leu Leu Ala Ile Arg  
65 70 75 80

Ile Ser Ser Trp Arg Asn Val Tyr  
85

&lt;210&gt; 291

<211> 60  
<212> PRT  
<213> Homo sapiens

<400> 291

Asn Trp Val Pro Thr Cys Leu Cys Pro Ser Ala Pro Cys Ser Phe His  
1 5 10 15

Leu Leu Ser Arg Phe Lys Cys Leu Phe Ser Pro Gln Arg Leu Thr Asp  
20 25 30

Ile Phe Arg Arg Tyr Asp Thr Asp Gln Asp Gly Trp Ile Gln Val Ser  
35 40 45

Tyr Glu Gln Tyr Leu Ser Met Val Phe Ser Ile Val  
50 55 60

<210> 292

<211> 33

<212> PRT

<213> Homo sapiens

<400> 292

Gln Arg Leu Thr Asp Ile Phe Arg Arg Tyr Asp Thr Asp Gln Asp Gly  
1 5 10 15

Trp Ile Gln Val Ser Tyr Glu Gln Tyr Leu Ser Met Val Phe Ser Ile  
20 25 30

Val

<210> 293  
<211> 73  
<212> PRT  
<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 293

Met	Phe	Tyr	Lys	Leu	Thr	Leu	Ile	Leu	Cys	Glu	Leu	Ser	Val	Ala	Gly
1				5				10						15	

Val	Thr	Gln	Ala	Ala	Ser	Gln	Arg	Pro	Leu	Gln	Arg	Leu	Pro	Arg	His
		20					25					30			

Ile	Cys	Ser	Gln	Arg	Xaa	Pro	Pro	Gly	Arg	Cys	Leu	Leu	Lys	Ala	Xaa
	35					40					45				

Leu	Gln	Thr	Thr	Trp	Xaa	Xaa	Pro	Asp	Lys	Pro	Ile	Pro	Arg	Leu	Ser
	50						55				60				

Pro	Pro	Leu	Xaa	Ser	Asp	Pro	Lys	Arg							
	65				70										

&lt;210&gt; 294

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 294

Thr	Ser	Ser	Pro	Val	Phe	Ser	Phe	Cys	Ser	Met	Ala	Val	Arg	Glu	Pro
1				5					10				15		

Asp	His	Leu	Gln	Arg	Val	Ser	Leu	Pro	Arg	Tyr	Asn	Val	Ser	Ala	Ser
		20					25					30			

Leu	Gln	Trp	Leu	Pro	Cys	His	Arg	Ile	Val	Leu	Gln	Pro	Trp	His	Met
	35					40					45				

Cys	Ala	Met	Trp	Glu	Leu	Gly	Gln	Val	Leu	Phe	His	Pro	Val	Ala	Pro
50					55					60					

Arg	Glu	Gly	Ala	Ala	Pro	Ser	Pro	Val	Ser	Thr	Leu	Thr	Trp	Pro	Ser
65					70				75				80		

Ser	Cys	Ser	His	Ser	Glu	Ser	Thr	Met	Glu	Leu	Glu	Leu	Gln	Phe	
					85				90				95		

&lt;210&gt; 295

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 295

Met	Ala	Val	Arg	Glu	Pro	Asp	His	Leu	Gln	Arg	Val	Ser	Leu	Pro	Arg
1				5					10				15		

<210> 296  
<211> 7  
<212> PRT  
<213> Homo sapiens

<400> 296  
Leu Pro Cys His Arg Ile Val  
1 5

<210> 297  
<211> 15  
<212> PRT  
<213> Homo sapiens

<400> 297  
Ser Leu Gln Trp Leu Pro Cys His Arg Ile Val Leu Gln Pro Trp  
1 5 10 15

<210> 298  
<211> 454  
<212> PRT  
<213> Homo sapiens

<400> 298  
Cys Phe Lys Arg Lys Pro Lys Arg Glu His Cys Ser Cys Pro Ile Thr  
1 5 10 15

Tyr Gln Ser Leu Gly Asp Ile Leu Asn Ala Ser Phe Phe Ser Lys Arg  
20 25 30

Lys Gly Met Gln Glu Val Lys Leu Asn Ser Tyr Val Val Ser Gly Thr  
35 40 45

Ile Gly Leu Lys Glu Lys Ile Ser Leu Ser Glu Pro Val Phe Leu Thr  
50 55 60

Phe Arg His Asn Gln Pro Gly Asp Lys Arg Thr Lys His Ile Cys Val  
65 70 75 80

Tyr Trp Glu Gly Ser Glu Gly Arg Trp Ser Thr Glu Gly Cys Ser  
85 90 95

His Val His Ser Asn Gly Ser Tyr Thr Lys Cys Lys Cys Phe His Leu  
100 105 110

Ser Ser Phe Ala Val Leu Val Ala Leu Ala Pro Lys Glu Asp Pro Val  
115 120 125

Leu Thr Val Ile Thr Gln Val Gly Leu Thr Ile Ser Leu Leu Cys Leu  
130 135 140

Phe Leu Ala Ile Leu Thr Phe Leu Leu Cys Arg Pro Ile Gln Asn Thr  
145 150 155 160

Ser Thr Ser Leu His Leu Glu Leu Ser Leu Cys Leu Phe Leu Ala His  
165 170 175

Leu Leu Phe Leu Thr Gly Ile Asn Arg Thr Glu Pro Glu Val Leu Cys  
180 185 190

Ser Ile Ile Ala Gly Leu Leu His Phe Leu Tyr Leu Ala Cys Phe Thr  
195 200 205

Trp Met Leu Leu Glu Gly Leu His Leu Phe Leu Thr Val Arg Asn Leu  
210 215 220

Lys Val Ala Asn Tyr Thr Ser Thr Gly Arg Phe Lys Lys Arg Phe Met  
225 230 235 240

Tyr Pro Val Gly Tyr Gly Ile Pro Ala Val Ile Ile Ala Val Ser Ala  
245 250 255

Ile Val Gly Pro Gln Asn Tyr Gly Thr Phe Thr His Cys Trp Leu Lys  
260 265 270

Leu Asp Lys Gly Phe Ile Trp Ser Phe Met Gly Pro Val Ala Val Ile  
275 280 285

Ile Leu Ile Asn Leu Val Phe Tyr Phe Gln Val Leu Trp Ile Leu Arg  
290 295 300

Ser Lys Leu Ser Ser Leu Asn Lys Glu Val Ser Thr Ile Gln Asp Thr  
305 310 315 320

Arg Val Met Thr Phe Lys Ala Ile Ser Gln Leu Phe Ile Leu Gly Cys  
325 330 335

Ser Trp Gly Leu Gly Phe Phe Met Val Glu Glu Val Gly Lys Thr Ile  
340 345 350

Gly Ser Ile Ile Ala Tyr Ser Phe Thr Ile Ile Asn Thr Leu Gln Gly  
355 360 365

Val Leu Leu Phe Val Val His Cys Leu Leu Asn Arg Gln Val Arg Met  
370 375 380

Glu Tyr Lys Lys Trp Phe Ser Gly Met Arg Lys Gly Val Glu Thr Glu  
385 390 395 400

Ser Thr Glu Met Ser Arg Ser Thr Thr Gln Thr Lys Thr Glu Glu Val  
405 410 415

Gly Lys Ser Ser Glu Ile Phe His Lys Gly Gly Thr Ala Ser Ser Ser  
420 425 430

Ala Glu Ser Thr Lys Gln Pro Gln Pro Gln Val His Leu Val Ser Ala  
435 440 445

Ala Trp Leu Lys Met Asn  
450

<210> 299  
<211> 101  
<212> PRT

<213> Homo sapiens

<400> 299

Phe Phe Trp Lys Glu Asn Leu Arg Arg Asn Gly Ser Arg Glu Asp Phe  
1 5 10 15

Ala Arg Arg Ala Thr Gln Leu Ile Gln Ser Val Glu Leu Ser Ile Trp  
20 25 30

Asn Ala Ser Phe Ala Ser Pro Gly Lys Gly Gln Ile Ser Glu Phe Asp  
35 40 45

Ile Val Tyr Glu Thr Lys Arg Cys Asn Glu Thr Arg Glu Asn Ala Phe  
50 55 60

Leu Glu Ala Gly Asn Asn Thr Met Asp Ile Asn Cys Ala Asp Ala Leu  
65 70 75 80

Lys Gly Asn Leu Arg Glu Ser Thr Ala Val Ala Leu Ser Leu Ile Asn  
85 90 95

Leu Leu Gly Ile Phe  
100

<210> 300

<211> 27

<212> PRT

<213> Homo sapiens

<400> 300

Asp Ile Asn Glu Cys Glu Thr Gly Leu Ala Lys Cys Lys Tyr Lys Ala  
1 5 10 15

Tyr Cys Arg Asn Lys Val Gly Gly Tyr Ile Cys  
20 25

<210> 301

<211> 12

<212> PRT

<213> Homo sapiens

<400> 301

Cys Arg Asn Lys Val Gly Gly Tyr Ile Cys Ser Cys  
1 5 10

<210> 302

<211> 331

<212> PRT

<213> Homo sapiens

<400> 302

Ala Leu Cys Pro His Pro His Leu Ile Leu Asn Val Thr Val Ser Pro  
1 5 10 15

Ala Pro Ser Cys Arg His Val Lys Lys Val Val Ala Ser Pro Ser Pro  
20 25 30

Ser Thr Thr Met Ile Ala Met Asp Ala Pro His Ser Lys Ala Ala Leu  
 35 40 45

Asp Ser Ile Asn Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr  
 50 55 60

His Val Pro Ala Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser  
 65 70 75 80

Leu Trp Arg Asp Leu Ile Asp Leu Met Thr Leu Trp Lys Arg Lys Cys  
 85 90 95

Leu Arg Glu Gly Phe Ile Thr Lys Asp Trp Asp Gln Pro Val Ala Asp  
 100 105 110

Trp Lys Ile Phe Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu Arg  
 115 120 125

Asn Pro Cys Ala Glu Glu Asp Met Phe Ala Trp Gln Ile Asp Phe Asn  
 130 135 140

Gly Gly Asp Arg Trp Lys Val Glu Ser Leu Pro Gly Ala His Gly Thr  
 145 150 155 160

Asp Phe Pro Asp Pro Lys Val Lys Tyr Phe Val Thr Ser Tyr Glu  
 165 170 175

Met Cys Leu Lys Ser Gln Leu Val Asp Leu Val Ala Glu Gly Tyr Trp  
 180 185 190

Glu Glu Leu Leu Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp  
 195 200 205

Phe Ala Ala Arg Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln  
 210 215 220

Leu Ala Ser Ala Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Pro Pro  
 225 230 235 240

Val Thr Ile Gln Gln Trp Asn Asn Ala Thr Trp Thr Glu Val Ser Tyr  
 245 250 255

Thr Phe Ser Asp Tyr Pro Arg Gly Val Arg Tyr Ile Leu Phe Gln His  
 260 265 270

Gly Gly Arg Asp Thr Gln Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val  
 275 280 285

Thr Asn Ser Ser Ile Val Val Ser Pro Lys Met Thr Arg Asn Gln Ala  
 290 295 300

Ser Ser Glu Ala Gln Pro Gly Gln Lys His Gly Gln Glu Glu Ala Ala  
 305 310 315 320

Gln Ser Pro Tyr Arg Ala Val Val Gln Ile Phe  
 325 330

&lt;210&gt; 303

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 303

Arg Gln Arg Ser Trp Asn Pro Gly Thr Asn Cys Tyr His Pro Asn Met  
1 5 10 15Pro Asp Ala Phe Leu Thr Cys Glu Thr Val Ile Phe Ala Trp Ala Ile  
20 25 30Gly Gly Glu Gly Phe Ser Tyr Pro Pro His Val Gly Leu Ser Leu Gly  
35 40 45Thr Pro Leu Asp Pro His Tyr Val Leu Leu Glu Val His Tyr Asp Asn  
50 55 60Pro Thr Tyr Glu Glu Gly Leu Ile Asp Asn Ser Gly Leu Arg Leu Phe  
65 70 75 80Tyr Thr Met Asp Ile Arg Lys Tyr Asp Ala Gly Val Ile Glu Ala Gly  
85 90 95Leu Trp Val Ser Leu Phe His Thr Ile Pro Pro Gly Met Pro Glu Phe  
100 105 110Gln Ser Glu Gly His Cys Thr Leu Glu Cys Leu Glu Ala Leu Glu  
115 120 125Ala Glu Lys Pro Ser Gly Ile His Val Phe Ala Val Leu Leu His Ala  
130 135 140His Leu Ala Gly Arg Gly Ile Arg Leu Arg His Phe Arg Lys Gly Lys  
145 150 155 160Glu Met Lys Leu Leu Ala Tyr Asp Asp Phe Asp Phe Asn Phe Gln  
165 170 175Glu Phe Gln Tyr Leu Lys Glu Glu Gln Thr Ile Leu Pro Gly Asp Asn  
180 185 190Leu Ile Thr Glu Cys Arg Tyr Asn Thr Lys Asp Arg Ala Glu Met Thr  
195 200 205Trp Gly Gly Leu Ser Thr Arg Ser Glu Met Cys Leu Ser Tyr Leu Leu  
210 215 220Tyr Tyr Pro Arg Ile Asn Leu Thr Arg Cys Ala Ser Ile Pro Asp Ile  
225 230 235 240Met Glu Gln Leu Gln Phe Ile Gly Val Lys Glu Ile Tyr Arg Pro Val  
245 250 255Thr Thr Trp Pro Phe Ile Ile Lys Ser Pro Lys Gln Tyr Lys Asn Leu  
260 265 270Ser Phe Met Asp Ala Met Asn Lys Phe Lys Trp Thr Lys Lys Glu Gly  
275 280 285

Leu Ser Phe Asn Lys Leu Val Leu Ser Leu Pro Val Asn Val Arg Cys  
 290                    295                    300

Ser Lys Thr Asp Asn Ala Glu Trp Ser Ile Pro Arg Asn Asp Ser Ile  
 305                    310                    315                    320

Thr Ser Arg Tyr Arg Lys Thr Leu  
 325

<210> 304

<211> 272

<212> PRT

<213> Homo sapiens

<400> 304

Met Cys Cys Trp Pro Leu Leu Leu Leu Trp Gly Leu Leu Pro Gly Thr  
 1                    5                    10                    15

Ala Ala Gly Gly Ser Gly Arg Thr Tyr Pro His Arg Thr Leu Leu Asp  
 20                    25                    30

Ser Glu Gly Lys Tyr Trp Leu Gly Trp Ser Gln Arg Gly Ser Gln Ile  
 35                    40                    45

Ala Phe Arg Leu Gln Val Arg Thr Ala Gly Tyr Val Gly Phe Gly Phe  
 50                    55                    60

Ser Pro Thr Gly Ala Met Ala Ser Ala Asp Ile Val Val Gly Gly Val  
 65                    70                    75                    80

Ala His Gly Arg Pro Tyr Leu Gln Asp Tyr Phe Thr Asn Ala Asn Arg  
 85                    90                    95

Glu Leu Lys Lys Asp Ala Gln Gln Asp Tyr His Leu Glu Tyr Ala Met  
 100                    105                    110

Glu Asn Ser Thr His Thr Ile Ile Glu Phe Thr Arg Glu Leu His Thr  
 115                    120                    125

Cys Asp Ile Asn Asp Lys Ser Ile Thr Asp Ser Thr Val Arg Val Ile  
 130                    135                    140

Trp Ala Tyr His His Glu Asp Ala Gly Glu Ala Gly Pro Lys Tyr His  
 145                    150                    155                    160

Asp Ser Asn Arg Gly Thr Lys Ser Leu Arg Leu Leu Asn Pro Glu Lys  
 165                    170                    175

Thr Ser Val Leu Ser Thr Ala Leu Pro Tyr Phe Asp Leu Val Asn Gln  
 180                    185                    190

Asp Val Pro Ile Pro Asn Lys Asp Thr Thr Tyr Trp Cys Gln Met Phe  
 195                    200                    205

Lys Ile Pro Val Phe Gln Glu Lys His His Val Ile Lys Val Glu Pro  
 210                    215                    220

Val Ile Gln Arg Gly His Glu Ser Leu Val His His Ile Leu Leu Tyr  
225 230 235 240

Gln Cys Ser Asn Asn Phe Asn Asp Ser Val Pro Gly Ile Arg Ala Arg  
245 250 255

Ile Ala Ile Thr Pro Thr Cys Pro Met His Ser Ser Pro Val Lys Leu  
260 265 270

<210> 305

<211> 207

<212> PRT

<213> Homo sapiens

<400> 305

Thr Gly Thr Phe Trp Ser Pro Arg Ser Gln Arg Arg Gly Cys Cys Gly  
1 5 10 15

Arg Arg Ala Pro Arg Pro Glu Ala Met Glu Asn Gly Ala Val Tyr Ser  
20 25 30

Pro Thr Thr Glu Glu Asp Pro Gly Pro Ala Arg Gly Pro Arg Ser Gly  
35 40 45

Leu Ala Ala Tyr Phe Phe Met Gly Arg Leu Pro Leu Leu Arg Arg Val  
50 55 60

Leu Lys Gly Leu Gln Leu Leu Leu Ser Leu Leu Ala Phe Ile Cys Glu  
65 70 75 80

Glu Val Val Ser Gln Cys Thr Leu Cys Gly Gly Leu Tyr Phe Phe Glu  
85 90 95

Phe Val Ser Cys Ser Ala Phe Leu Leu Ser Leu Leu Ile Leu Ile Val  
100 105 110

Tyr Cys Thr Pro Phe Tyr Glu Arg Val Asp Thr Thr Lys Val Lys Ser  
115 120 125

Ser Asp Phe Tyr Ile Thr Leu Gly Thr Gly Cys Val Phe Leu Leu Ala  
130 135 140

Ser Ile Ile Phe Val Ser Thr His Asp Arg Thr Ser Ala Glu Ile Ala  
145 150 155 160

Ala Ile Val Phe Gly Phe Ile Ala Ser Phe Met Phe Leu Leu Asp Phe  
165 170 175

Ile Thr Met Leu Tyr Glu Lys Arg Gln Glu Ser Gln Leu Arg Lys Pro  
180 185 190

Glu Asn Thr Thr Arg Ala Glu Ala Leu Thr Glu Pro Leu Asn Ala  
195 200 205

<210> 306  
<211> 135  
<212> PRT  
<213> Homo sapiens

<400> 306  
Ala Ser Ala Pro Arg Val Met Arg Gly His Leu Ala Gly Phe Pro Ala  
1 5 10 15

Leu Ser Gly Leu Ala Ser Val Cys Leu Trp Ala Thr Phe Ser Ala Gln  
20 25 30

Leu Pro Gly Pro Val Ala Ala Thr Ser Trp Thr Pro Ala Pro Leu Gly  
35 40 45

Cys Ser Ala Ala Arg Ser Gly Pro Glu Lys Arg Leu Gly Thr Ala Ala  
50 55 60

Pro Gly Ser Ala Ala Ser Leu Ala Gln Ala Gly Pro Gly Ala Pro Cys  
65 70 75 80

Arg Val Leu Pro Val Asp Pro Ala Pro Ala Leu Asn Val Arg Glu  
85 90 95

Pro Gly Trp Leu Gly Leu Phe Asp Gly Ala Leu Leu Gln Val Leu  
100 105 110

Leu Asn Phe Leu Arg Lys Ser Thr Asp Val Leu Met Asp Thr Arg Glu  
115 120 125

Ala Glu Ser Leu Glu Val Glu  
130 135

<210> 307  
<211> 188  
<212> PRT  
<213> Homo sapiens

<400> 307  
Asn Lys Leu His Ser Phe Pro Val Phe Leu Ser Gln Leu Leu Leu Asp  
1 5 10 15

Arg Gln Leu Leu His Ala Pro Gln Thr Leu Pro Thr Pro His Cys Gly  
20 25 30

Gly Ser Ser Arg Pro Gly Pro Ser His Pro Pro Trp Leu Leu Ile Gln  
35 40 45

Leu Pro Cys Val His Val Ala Leu Trp Gln Met Leu Arg Asp Phe Ser  
50 55 60

Asp Ser Arg Ile Thr Pro Ser Thr Leu Thr Thr Gln Pro Ala Ala Gln  
65 70 75 80

Thr Ala Ala Pro Ala Lys Asp Gln Glu Ser Asp Ile Val Gly Gly Glu  
85 90 95

Gly Ile Leu Cys Asp Ile Ala Phe Leu Gln Glu Asp His Pro Leu Gly

100

105

110

Val Gly Gly Ala Ser Ala Pro Ser Ser Arg Arg Glu Leu Ser Arg Arg  
 115 120 125

Gly Val His Thr Gln Thr Leu Pro Glu Asp Gly Thr Leu His Gly Thr  
 130 135 140

Pro Ser Ser Ser Phe Asp Cys Gly Ile Lys Tyr Ile Ile Ser Trp Pro  
 145 150 155 160

Leu Ala Pro Gly Cys Asp Leu Pro Ser Leu Glu Leu Ser Leu Val Cys  
 165 170 175

Lys Gly Val Ser Ser Cys Met Gly Phe Ala Ala Gly  
 180 185

&lt;210&gt; 308

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 308

Pro Gly Arg Pro Thr Arg Pro Thr Lys Asn Lys Val Cys Val Cys Leu  
 1 5 10 15

Gly Met Leu Phe Trp Ala Tyr Pro Ile Cys Val Phe Ile Asp Ser Leu  
 20 25 30

Ser Cys Gln Pro Cys Leu Trp Ser Thr Gly Ala Thr Ser His Phe Asn  
 35 40 45

Ser Pro Thr Thr Ser Pro Leu Phe Thr Leu Phe Met Pro Cys Ala Leu  
 50 55 60

Ala Pro Asn Pro Phe Thr Gln Leu Gly Lys Leu Asp Asp Arg  
 65 70 75

&lt;210&gt; 309

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 309

Pro Val Asp Leu Thr Lys Thr Arg Leu Gln  
 1 5 10

&lt;210&gt; 310

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 310

Pro Thr Asp Val Leu Lys Ile Arg Met Gln  
 1 5 10

<210> 311  
<211> 313  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (117)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 311  
Met Thr Phe Gly Ser Thr Ile Ser Pro Thr Ser Thr His Ala Ser Pro  
1 5 10 15  
  
Ser Leu Gly Phe Cys Cys Ser Trp Leu Leu Glu Asp Leu Glu Gln  
20 25 30  
  
Leu Tyr Cys Ser Ala Phe Glu Glu Ala Ala Leu Thr Arg Arg Ile Cys  
35 40 45  
  
Asn Pro Thr Ser Cys Trp Leu Pro Leu Asp Met Glu Leu Leu His Arg  
50 55 60  
  
Gln Val Leu Ala Leu Gln Thr Gln Arg Val Leu Leu Gly Met Trp Leu  
65 70 75 80  
  
Arg Arg Ala Trp Asp Thr Trp Val Ser Pro Arg Arg Val Ala Pro Gly  
85 90 95  
  
Ser Arg Cys Leu Leu Thr Ala Ser His Pro Cys Thr Glu Lys Arg Arg  
100 105 110  
  
Lys Ala Ser Ala Xaa Gln Arg Asn Leu Gly Tyr Pro Leu Ala Met Leu  
115 120 125  
  
Cys Leu Leu Val Leu Thr Gly Leu Ser Val Leu Ile Val Ala Ile His  
130 135 140  
  
Ile Leu Glu Leu Leu Ile Asp Glu Ala Ala Met Pro Arg Gly Met Gln  
145 150 155 160  
  
Gly Thr Ser Leu Gly Gln Val Ser Phe Ser Lys Leu Gly Ser Phe Gly  
165 170 175  
  
Ala Val Ile Gln Val Val Leu Ile Phe Tyr Leu Met Val Ser Ser Val  
180 185 190  
  
Val Gly Phe Tyr Ser Ser Pro Leu Phe Arg Ser Leu Arg Pro Arg Trp  
195 200 205  
  
His Asp Thr Ala Met Thr Gln Ile Ile Gly Asn Cys Val Cys Leu Leu  
210 215 220  
  
Val Leu Ser Ser Ala Leu Pro Val Phe Ser Arg Thr Leu Gly Leu Thr  
225 230 235 240  
  
Arg Phe Asp Leu Leu Gly Asp Phe Gly Arg Phe Asn Trp Leu Gly Asn  
245 250 255

Phe Tyr Ile Val Phe Leu Tyr Asn Ala Ala Phe Ala Gly Leu Thr Thr  
260 265 270

Leu Cys Leu Val Lys Thr Phe Thr Ala Ala Val Arg Ala Glu Leu Ile  
275 280 285

Arg Ala Phe Gly Leu Asp Arg Leu Pro Leu Pro Val Ser Gly Phe Pro  
290 295 300

Gln Ala Ser Arg Lys Thr Gln His Gln  
305 310

<210> 312

<211> 92

<212> PRT

<213> Homo sapiens

<400> 312

Leu Cys Val Cys Leu Val Tyr Leu Cys Met Tyr Gly Val Cys Leu Cys  
1 5 10 15

Val Ile Val Cys Val Ser Gly Val Ser Leu Cys Leu Tyr Val Trp Gly  
20 25 30

Val Ser Val Cys Asp Cys Val Ser Val Phe Met Cys Val Cys Leu Cys  
35 40 45

Val Ile Phe Cys Val Tyr Gly Lys Pro Arg Thr Glu His Tyr His Ser  
50 55 60

Pro His Leu Ala Lys Gln Lys Ala Phe Arg Glu Met Cys Gly Arg His  
65 70 75 80

Asp Val Ser Ala Ala Gly Ile Phe Gln Ser Tyr Val  
85 90

<210> 313

<211> 207

<212> PRT

<213> Homo sapiens

<400> 313

Gly His Met Pro Tyr Gly Trp Leu Thr Glu Ile Arg Ala Val Tyr Pro  
1 5 10 15

Ala Phe Asp Lys Asn Asn Pro Ser Asn Lys Leu Val Ser Thr Ser Asn  
20 25 30

Thr Val Thr Ala Ala His Ile Lys Lys Phe Thr Phe Val Cys Met Ala  
35 40 45

Leu Ser Leu Thr Leu Cys Phe Val Met Phe Trp Thr Pro Asn Val Ser  
50 55 60

Glu Lys Ile Leu Ile Asp Ile Ile Gly Val Asp Phe Ala Phe Ala Glu  
65 70 75 80

Leu Cys Val Val Pro Leu Arg Ile Phe Ser Phe Phe Pro Val Pro Val  
85 90 95

Thr Val Arg Ala His Leu Thr Gly Trp Leu Met Thr Leu Lys Lys Thr  
100 105 110

Phe Val Leu Ala Pro Ser Ser Val Leu Arg Ile Ile Val Leu Ile Ala  
115 120 125

Ser Leu Val Val Leu Pro Tyr Leu Gly Val His Gly Ala Thr Leu Gly  
130 135 140

Val Gly Ser Leu Leu Ala Gly Phe Val Gly Glu Ser Thr Met Val Ala  
145 150 155 160

Ile Ala Ala Cys Tyr Val Tyr Arg Lys Gln Lys Lys Lys Met Glu Asn  
165 170 175

Glu Ser Ala Thr Glu Gly Glu Asp Ser Ala Met Thr Asp Met Pro Pro  
180 185 190

Thr Glu Glu Val Thr Asp Ile Val Glu Met Arg Glu Glu Asn Glu  
195 200 205

<210> 314  
<211> 114  
<212> PRT  
<213> Homo sapien

<400> 314  
Gln Val Val Phe Val Ala Ile Leu Leu His Ser His Leu Glu Cys Arg  
1 5 10 15

Glu Pro Leu Leu Ile Pro Ile Leu Ser Leu Tyr Met Gly Ala Leu Val  
20 25 30

Arg Cys Thr Thr Leu Cys Leu Gly Tyr Tyr Lys Asn Ile His Asp Ile  
           35                  40                           45 .

Ile Pro Asp Arg Ser Gly Pro Glu Leu Gly Gly Asp Ala Thr Ile Arg  
50 55 60

Lys Met Leu Ser Phe Trp Trp Pro Leu Ala Leu Ile Leu Ala Thr Gln  
 65                    70                    75                    80

Arg Ile Ser Arg Pro Ile Val Asn Leu Phe Val Ser Arg Asp Leu Gly  
85 90 95

Gly Ser Ser Ala Ala Thr Glu Ala Val Ala Ile Leu Thr Ala Thr Tyr  
100 105 110

**Pro Val**

<210> 315  
<211> 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 315

Arg	Cys	Cys	Cys	Arg	Gly	Cys	Ser	Cys	Arg	Ala	Arg	Leu	Cys	Pro	Pro
1				5				10						15	

Ala	Arg	Ser	Thr	Ala	Val	Ala	Pro	Glu	Cys	Arg	Gly	Ala	His	Pro	Ser
20							25						30		

Arg	Ala	Met	Arg	Pro	Gly	Thr	Ala	Leu	Gln	Ala	Val	Leu	Leu	Ala	Val
35							40						45		

Leu	Leu	Val	Gly	Leu	Arg	Ala	Ala	Thr	Gly	Arg	Leu	Leu	Ser	Gly	Gln
50					55						60				

Pro	Val	Cys	Arg	Gly	Gly	Thr	Gln	Arg	Pro	Cys	Tyr	Lys	Val	Ile	Tyr
65					70				75				80		

Phe	His	Asp	Thr	Ser	Arg	Arg	Leu	Asn	Phe	Glu	Glu	Ala	Lys	Glu	Ala
				85					90				95		

Cys	Arg	Arg	Gly	Trp	Arg	Pro	Ala	Ser	Gln	His	Arg	Val	Leu	Lys	Met
				100				105					110		

Asn	Arg	Asn													
		115													

&lt;210&gt; 316

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 316

Met	Arg	Pro	Gly	Thr	Ala	Leu	Gln	Ala	Val	Leu	Leu	Ala	Val	Leu	Leu
1					5				10				15		

Val	Gly	Leu	Arg	Ala	Ala	Thr	Gly	Arg	Leu	Leu	Ser	Gly	Gln	Pro	Val
20						25						30			

Cys	Arg	Gly	Gly	Thr	Gln	Arg	Pro	Cys	Tyr	Lys	Val	Ile	Tyr	Phe	His
35						40					45				

Asp	Thr	Ser	Arg	Arg	Leu	Asn	Phe	Glu	Glu	Ala	Lys	Glu	Ala	Cys	Arg
50					55					60					

Arg	Gly	Trp	Arg	Pro	Ala	Ser	Gln	His	Arg	Val	Leu	Lys	Met	Asn	Arg
65					70				75				80		

Asn

&lt;210&gt; 317

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 317  
Ile Arg His Glu Gln Gln Gly Glu Glu Asp Asp Glu His Ala Arg Pro  
1 5 10 15  
Leu Ala Glu Ser Leu Leu Leu Ala Ile Ala Asp Leu Leu Phe Cys Pro  
20 25 30  
Asp Phe Thr Val Gln Ser His Arg Arg Ser Thr Val Asp Ser Ala Glu  
35 40 45  
Asp Val His Ser Leu Asp Ser Cys Glu Tyr Ile Trp Glu Ala Gly Val  
50 55 60  
Gly Phe Ala His Ser Pro Gln Pro Asn Tyr Ile His Asp Met Asn Arg  
65 70 75 80  
Met Glu Leu Leu Lys Leu Leu Leu Thr Cys Phe Ser Glu Ala Met Tyr  
85 90 95  
Leu Pro Pro Ala Pro Glu Ser Gly Ser Thr Asn Pro Trp Val Gln Phe  
100 105 110  
Phe Cys Ser Thr Glu Asn Arg His Ala Leu Pro Leu Phe Thr Ser Leu  
115 120 125  
Leu Asn Thr Val Cys Ala Tyr Asp Pro Val Gly Tyr Gly Ile Pro Tyr  
130 135 140  
Asn His Leu Leu Phe Ser Asp Tyr Arg Glu Pro Leu Val Glu Glu Ala  
145 150 155 160  
Ala Gln Val Leu Ile Val Thr Leu Asp His Asp Ser Ala Ser Ser Ala  
165 170 175  
Ser Pro Thr Val Asp Gly Thr Thr Gly Thr Ala Met Asp Asp Ala  
180 185 190  
Asp Pro Pro Gly Pro Glu Asn Leu Phe Val Asn Tyr Leu Ser Arg Ile  
195 200 205  
His Arg Glu Glu Asp Phe Gln Phe Ile Leu Lys Gly Ile Ala Arg Leu  
210 215 220  
Leu Ser Asn Pro Leu Leu Gln Thr Tyr Leu Pro Asn Ser Thr Lys Lys  
225 230 235 240  
Asp Pro Val Pro Pro Gly Ala Ala Ser Ser Leu Leu Glu Ala Leu Arg  
245 250 255  
Leu Gln Gln Glu Ile Pro Leu Leu Arg Ala Glu Glu Gln Arg Arg Pro  
260 265 270  
Arg His Pro Cys Pro His Pro Leu Leu Pro Gln Arg Cys Pro Gly Arg  
275 280 285  
Ser Val  
290

<210> 318  
<211> 318  
<212> PRT  
<213> Homo sapiens

<400> 318

Arg	Leu	Val	Tyr	Asn	Lys	Thr	Ser	Arg	Ala	Thr	Gln	Phe	Pro	Asp	Gly
1															15
Val	Asp	Val	Arg	Val	Pro	Gly	Phe	Gly	Lys	Thr	Phe	Ser	Leu	Glu	Phe
	20								25						30
Leu	Asp	Pro	Ser	Lys	Ser	Ser	Val	Gly	Ser	Tyr	Phe	His	Thr	Met	Val
	35								40						45
Glu	Ser	Leu	Val	Gly	Trp	Gly	Tyr	Thr	Arg	Gly	Glu	Asp	Val	Arg	Gly
	50					55					60				
Ala	Pro	Tyr	Asp	Trp	Arg	Arg	Ala	Pro	Asn	Glu	Asn	Gly	Pro	Tyr	Phe
	65				70					75					80
Leu	Ala	Leu	Arg	Glu	Met	Ile	Glu	Glu	Met	Tyr	Gln	Leu	Tyr	Gly	Gly
					85				90						95
Pro	Val	Val	Leu	Val	Ala	His	Ser	Met	Gly	Asn	Met	Tyr	Thr	Leu	Tyr
								100		105					110
Phe	Leu	Gln	Arg	Gln	Pro	Gln	Ala	Trp	Lys	Asp	Lys	Tyr	Ile	Arg	Ala
	115							120							125
Phe	Val	Ser	Leu	Gly	Ala	Pro	Trp	Gly	Gly	Val	Ala	Lys	Thr	Leu	Arg
	130							135							140
Val	Leu	Ala	Ser	Gly	Asp	Asn	Asn	Arg	Ile	Pro	Val	Ile	Gly	Pro	Leu
	145					150					155				160
Lys	Ile	Arg	Glu	Gln	Gln	Arg	Ser	Ala	Val	Ser	Thr	Ser	Trp	Leu	Leu
								165		170					175
Pro	Tyr	Asn	Tyr	Thr	Trp	Ser	Pro	Glu	Lys	Val	Phe	Val	Gln	Thr	Pro
								180		185					190
Thr	Ile	Asn	Tyr	Thr	Leu	Arg	Asp	Tyr	Arg	Lys	Phe	Phe	Gln	Asp	Ile
	195							200							205
Gly	Phe	Glu	Asp	Gly	Trp	Leu	Met	Arg	Gln	Asp	Thr	Glu	Gly	Leu	Val
	210						215					220			
Glu	Ala	Thr	Met	Pro	Pro	Gly	Val	Gln	Leu	His	Cys	Leu	Tyr	Gly	Thr
	225						230				235				240
Gly	Val	Pro	Thr	Pro	Asp	Ser	Phe	Tyr	Tyr	Glu	Ser	Phe	Pro	Asp	Arg
					245				250						255
Asp	Pro	Lys	Ile	Cys	Phe	Gly	Asp	Gly	Asp	Gly	Thr	Val	Asn	Leu	Lys
					260				265						270
Ser	Ala	Leu	Gln	Cys	Gln	Ala	Trp	Gln	Ser	Arg	Gln	Glu	His	Gln	Val
								275		280					285

Leu Leu Gln Glu Leu Pro Gly Ser Glu His Ile Glu Met Leu Ala Asn  
290 295 300

Ala Thr Thr Leu Ala Tyr Leu Lys Arg Val Leu Leu Gly Pro  
305 310 315

<210> 319

<211> 362

<212> PRT

<213> Homo sapiens

<400> 319

Met Asn Lys Glu Asp Lys Val Trp Asn Asp Cys Lys Gly Val Asn Lys  
1 5 10 15

Leu Thr Asn Leu Glu Glu Gln Tyr Ile Ile Leu Ile Phe Gln Asn Gly  
20 25 30

Leu Asp Pro Pro Ala Asn Met Val Phe Glu Ser Ile Ile Asn Glu Ile  
35 40 45

Gly Ile Lys Asn Asn Ile Ser Asn Phe Phe Ala Lys Ile Pro Phè Glu  
50 55 60

Glu Ala Asn Gly Arg Leu Val Ala Cys Thr Arg Thr Tyr Glu Glu Ser  
65 70 75 80

Ile Lys Gly Ser Cys Gly Gln Lys Glu Asn Lys Ile Lys Thr Val Ser  
85 90 95

Phe Glu Ser Lys Ile Gln Leu Arg Ser Lys Gln Glu Phe Gln Phe Phe  
100 105 110

Asp Glu Glu Glu Glu Thr Gly Glu Asn His Thr Ile Phe Ile Gly Pro  
115 120 125

Val Glu Lys Leu Ile Val Tyr Pro Pro Pro Ala Lys Gly Gly Ile  
130 135 140

Ser Val Thr Asn Glu Asp Leu His Cys Leu Asn Glu Gly Glu Phe Leu  
145 150 155 160

Asn Asp Val Ile Ile Asp Phe Tyr Leu Lys Tyr Leu Val Leu Glu Lys  
165 170 175

Leu Lys Lys Glu Asp Ala Asp Arg Ile His Ile Phe Ser Ser Phe Phe  
180 185 190

Tyr Lys Arg Leu Asn Gln Arg Glu Arg Arg Asn His Glu Thr Thr Asn  
195 200 205

Leu Ser Ile Gln Gln Lys Arg His Gly Arg Val Lys Thr Trp Thr Arg  
210 215 220

His Val Asp Ile Phe Glu Lys Asp Phe Ile Phe Val Pro Leu Asn Glu  
225 230 235 240

Pro Lys Tyr Glu Pro Asn Pro His Tyr His Glu Asn Ala Val Ile Gln  
260 265 270

Lys Cys Ser Thr Val Glu Asp Ser Cys Ile Ser Ser Ser Ala Ser Glu  
275 280 285

Met Glu Ser Cys Ser Gln Asn Ser Ser Ala Lys Pro Val Ile Lys Lys  
290 295 300

Met Leu Asn Lys Lys His Cys Ile Ala Val Ile Asp Ser Asn Pro Gly  
305 310 . 315 320

Gln Glu Glu Ser Asp Pro Arg Tyr Lys Arg Asn Ile Cys Ser Val Lys  
 325 330 335

Tyr Ser Val Lys Lys Ile Asn His Thr Ala Ser Glu Asn Glu Glu Phe  
 340                    345                    350

Asn	Lys	Gly	Glu	Ser	Thr	Ser	Gln	Lys	Ser
355	.						360		

<210> 320

<211> 330

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (247)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 320

Met Ser Pro Leu Ser Ala Ala Arg Ala Ala Leu Arg Val Tyr Ala Val  
1 5 . 10 . 15

Gly Ala Ala Val Ile Leu Ala Gln Leu Leu Arg Arg Cys Arg Gly Gly  
20 25 30

Phe Leu Glu Pro Val Xaa Pro Pro Arg Pro Asp Arg Val Ala Ile Val  
35 40 45

Thr Gly Gly Thr Asp Gly Ile Gly Tyr Ser Thr Ala Asn Ile Trp Arg  
50 55 60

Lys Gln Val Val Ser Lys Ile Lys Glu Glu Thr Leu Asn Asp Lys Val  
85 90 95

Glu Phe Leu Tyr Cys Asp Leu Ala Ser Met Thr Ser Ile Arg Gln Phe  
 100 105 110

Val Gln Lys Phe Lys Met Lys Lys Ile Pro Leu His Val Leu Ile Asn  
 115 120 125

Asn Ala Gly Val Met Met Val Pro Gln Arg Lys Thr Arg Asp Gly Phe  
 130 135 140

Glu Glu His Phe Gly Leu Asn Tyr Leu Gly His Phe Leu Leu Thr Asn  
 145 150 155 160

Leu Leu Leu Asp Thr Leu Lys Glu Ser Gly Ser Pro Gly His Ser Ala  
 165 170 175

Arg Val Val Thr Val Ser Ser Ala Thr His Tyr Val Ala Glu Leu Asn  
 180 185 190

Met Asp Asp Leu Gln Ser Ser Ala Cys Tyr Ser Pro His Ala Ala Tyr  
 195 200 205

Ala Gln Ser Lys Leu Ala Leu Val Leu Phe Thr Tyr His Leu Gln Arg  
 210 215 220

Leu Leu Ala Ala Glu Gly Ser His Val Thr Ala Asn Val Val Asp Pro  
 225 230 235 240

Gly Val Val Asn Thr Asp Xaa Tyr Lys His Val Phe Trp Ala Thr Arg  
 245 250 255

Leu Ala Lys Lys Leu Leu Gly Trp Leu Leu Phe Lys Thr Pro Asp Glu  
 260 265 270

Gly Ala Trp Thr Ser Ile Tyr Ala Ala Val Thr Pro Glu Leu Glu Gly  
 275 280 285

Val Gly Gly Arg Tyr Leu Tyr Asn Glu Lys Glu Thr Lys Ser Leu His  
 290 295 300

Val Thr Tyr Asn Gln Lys Leu Gln Gln Leu Trp Ser Lys Ser Cys  
 305 310 315 320

Glu Met Thr Gly Val Leu Asp Val Thr Leu  
 325 330

<210> 321

<211> 71

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 321

Met Ser Pro Leu Ser Ala Ala Arg Ala Leu Arg Val Tyr Ala Val  
 1 5 10 15

Gly Ala Ala Val Ile Leu Ala Gln Leu Leu Arg Arg Cys Arg Gly Gly  
20 25 30

Phe Leu Glu Pro Val Xaa Pro Pro Arg Pro Asp Arg Val Ala Ile Val  
35 40 45

Thr Gly Gly Thr Asp Gly Ile Gly Tyr Ser Thr Ala Asn Ile Trp Arg  
50 55 60

Asp Leu Ala Cys Met Leu Ser  
65 70

<210> 322

<211> 266

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (174)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (195)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (199)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (206)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 322

Met Glu Val Thr Thr Glu Asp Thr Ser Arg Thr Asp Val Ser Glu Pro  
1 5 10 15

Ala Thr Ser Gly Gly Ala Ala Asp Gly Val Thr Ser Ile Ala Pro Thr  
20 25 30

Ala Val Ala Ser Ser Thr Thr Ala Ala Ser Ile Thr Thr Ala Ala Ser  
35 40 45

Ser Met Thr Val Ala Ser Ser Ala Pro Thr Thr Ala Ala Ser Ser Thr  
50 55 60

Thr Val Ala Ser Ile Ala Pro Thr Thr Ala Ser Ser Met Thr Ala  
65 70 75 80

Ala Ser Ser Thr Pro Met Thr Leu Ala Leu Pro Ala Pro Thr Ser Thr  
85 90 95

Xaa Thr Gly Arg Thr Pro Ser Thr Thr Ala Thr Gly His Pro Ser Leu  
100 105 110

Ser Thr Ala Leu Ala Gln Val Pro Lys Ser Ser Ala Leu Pro Arg Thr  
115 120 125

Ala Thr Leu Ala Thr Leu Ala Thr Arg Ala Gln Thr Val Ala Thr Thr  
130 135 140

Ala Asn Thr Ser Ser Pro Met Ser Thr Arg Pro Ser Pro Ser Lys His  
145 150 155 160

Met Pro Ser Asp Thr Ala Ala Ser Pro Val Pro Pro Met Xaa Pro Gln  
165 170 175

Ala Gln Gly Pro Ile Ser Gln Val Ser Val Asp Gln Pro Val Val Asn  
180 185 190

Thr Thr Xaa Lys Ser Thr Xaa Met Pro Ser Asn Thr Thr Xaa Glu Pro  
195 200 205

Leu Thr Gln Ala Val Val Asp Lys Thr Leu Leu Leu Val Val Leu Leu  
210 215 220

Leu Gly Val Thr Leu Phe Ile Thr Val Leu Val Leu Phe Ala Leu Gln  
225 230 235 240

Ala Tyr Glu Ser Tyr Lys Lys Lys Asp Tyr Thr Gln Val Asp Tyr Leu  
245 250 255

Ile Asn Gly Met Tyr Ala Asp Ser Glu Met  
260 265

<210> 323

<211> 99

<212> PRT

<213> Homo sapiens

<400> 323

Ala Arg Cys Pro Glu Leu Pro Gly Leu Arg Cys Arg Pro Arg Pro Arg  
1 5 10 15

Ala Gly Pro Gln Ala Pro Ser Tyr Cys Pro Arg Ala Thr Arg Pro Pro  
20 25 30

Gly Ala Cys Cys Ala Arg Met Arg Leu Leu Leu Glu Trp Arg Val Tyr  
35 40 45

Leu Arg Leu Thr Cys Ala Thr Lys Asp Gly Met Ala Arg Glu Cys Pro  
50 55 . 60

Thr Thr Trp Leu Ser Pro Pro Ala Lys Pro Asp Phe Ala Gln Arg His  
65 70 75 80

Ser Val Lys Pro Thr Ala Leu Gln Gly Gly Arg Trp Ser Arg Leu Gly  
85 90 95

Ala Ser Pro

<210> 324

<211> 96

<212> PRT

<213> Homo sapiens

<400> 324

Leu Pro Ala Thr Val Glu Phe Ala Val His Thr Phe Asn Gln Gln Ser  
1 5 10 15

Lys Asp Tyr Tyr Ala Tyr Arg Leu Gly His Ile Leu Asn Ser Trp Lys  
20 25 30

Glu Gln Val Glu Ser Lys Thr Val Phe Ser Met Glu Leu Leu Leu Gly  
35 40 45

Arg Thr Arg Cys Gly Lys Phe Glu Asp Asp Ile Asp Asn Cys His Phe  
50 55 60

Gln Glu Ser Thr Glu Leu Asn Asn Thr Phe Thr Cys Phe Phe Thr Ile  
65 70 75 80

Ser Thr Arg Pro Trp Met Thr Gln Phe Ser Leu Leu Asn Lys Thr Cys  
85 90 95

<210> 325

<211> 166

<212> PRT

<213> Homo sapiens

<400> 325

Leu Leu Trp Ala Arg Gly Leu Gly Arg Ala Lys Ser Ala Val Pro Thr  
1 5 10 15

Val Ser Thr Met Leu Gly Leu Pro Trp Lys Gly Gly Leu Ser Trp Ala  
20 25 30

Leu Leu Leu Leu Leu Gly Ser Gln Ile Leu Leu Ile Tyr Ala Trp  
35 40 45

His Phe His Glu Gln Arg Asp Cys Asp Glu His Asn Val Met Ala Arg  
50 55 60

Tyr Leu Pro Ala Thr Val Glu Phe Ala Val His Thr Phe Asn Gln Gln  
65 70 75 80

Ser Lys Asp Tyr Tyr Ala Tyr Arg Leu Gly His Ile Leu Asn Ser Trp  
85 90 95

Lys Glu Gln Val Glu Ser Lys Thr Val Phe Ser Met Glu Leu Leu Leu  
100 105 110

Gly Arg Thr Arg Cys Gly Lys Phe Glu Asp Asp Ile Asp Asn Cys His  
115 120 125

Phe Gln Glu Ser Thr Glu Leu Asn Asn Thr Phe Thr Cys Phe Phe Thr  
130 135 140

Ile Ser Thr Arg Pro Trp Met Thr Gln Phe Ser Leu Leu Asn Lys Thr  
145 150 155 160

Cys Leu Glu Gly Phe His  
165

<210> 326

<211> 214

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (200)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (205)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 326

Leu Glu Gln Lys Leu Glu Leu His Arg Gly Gly Arg Ser Arg Thr  
1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Glu Glu Arg Gly  
20 25 30

Glu Gly Glu Gln Arg Thr Gly Arg Glu Phe Ser Gly Asn Gly Gly Arg  
35 40 45

Ala Val Glu Ala Ala Arg Met Arg Leu Leu Cys Gly Leu Trp Leu Trp  
50 55 60

Leu Ser Leu Leu Lys Val Leu Gln Ala Gln Thr Pro Thr Pro Leu Pro  
65 70 75 80

Leu Pro Pro Pro Met Gln Ser Phe Gln Gly Asn Gln Phe Gln Gly Glu  
85 90 95

Trp Phe Val Leu Gly Leu Ala Gly Asn Ser Phe Arg Pro Glu His Arg  
100 105 110

Ala Leu Leu Asn Ala Phe Thr Ala Thr Phe Glu Leu Ser Asp Asp Gly  
115 120 125

Arg Phe Glu Val Trp Asn Ala Met Thr Arg Gly Gln His Cys Asp Thr  
130 135 140

Trp Ser Tyr Val Leu Ile Pro Ala Ala Gln Pro Gly Gln Phe Thr Val  
145 150 155 160

Asp His Gly Val Gly Arg Ser Trp Leu Leu Pro Pro Gly Thr Leu Asp  
165 170 175

Gln Phe Ile Cys Leu Gly Arg Ala Gln Gly Leu Ser Asp Asp Asn Ile  
180 185 190

Val Phe Pro Asp Val Thr Gly Xaa Ala Leu Asp Leu Xaa Ser Leu Pro  
195 200 205

Trp Val Ala Ala Pro Ala  
210

<210> 327

<211> 181

<212> PRT

<213> Homo sapiens

<400> 327

Met Cys Val Cys Glu Arg Lys Arg Gly Arg Glu Lys Glu Gly Gly Val  
1 5 10 15

Thr Pro Thr Met Thr Ser Asn Phe Pro Phe Cys Thr Leu Ile Leu Gly  
20 25 30

Ile Ala Gln Ala Gln Ala Cys Pro Gly Cys Pro Gly Asp Trp Pro Gly  
35 40 45

Leu Gly Ser Gly Val Gly Glu Gly Leu His His Ile Arg Thr Cys Arg  
50 55 60

Thr Pro Ile Pro Cys Ser Pro Pro Ala Pro Ala Ala Cys Leu Gly  
65 70 75 80

Ser Gly His Ala Arg Leu Pro Cys Val Leu Arg Leu Trp Pro Val Pro  
85 90 95

Ala Asn Leu Ser Ser Pro Phe Arg Leu Glu Ala Leu His Cys Ser Phe  
100 105 110

Trp Ser Ser Pro Leu Leu Pro Ala Pro His Leu Ala Phe Phe Gly Phe  
115 120 125

Arg Asp Leu Leu Thr Asp Phe Leu Leu Ala Ala Cys Leu Leu Thr Phe  
130 135 140

Gln Lys Thr Pro Leu Glu Leu Pro Met Ala Val Val His Leu Leu Val  
145 150 155 160

Ala Thr Pro Cys Tyr Gln Met Leu Asp Asn Leu Pro Leu Pro Ser Ala  
165 170 175

Ala Ala Asn Trp Cys  
180

&lt;210&gt; 328

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 328

Tyr	Leu	Trp	Gly	Arg	Pro	Arg	Leu	Arg	Met	Arg	Ala	Gly	Thr	Ser	Pro
1					5				10						15

Ser	Ala	Pro	Trp	Gly	Glu	Lys	Arg	Glu	Lys	Leu	Gly	His	Lys	Leu	Pro
						20		25					30		

Val	Ala	Leu	Gln	Gly	Tyr	His	Pro	Trp	Ile	Leu	Leu	Glu	Cys	Thr	Val
						35		40					45		

Phe	Trp	Ala	Arg	Val	Val	Leu	Ala	Cys	Phe	Ser	Leu	Tyr	Leu	Ile	Arg
						50		55				60			

Gly	Pro	Asn	Cys	Ile	Asn	Arg	Gln	Pro	Glu	Pro	Thr	Tyr	Gln	Lys	Ala
					65		70				75			80	

Cys	Asn	Leu	Asp	Cys	Ser	Ser	Asp	Phe	Gly	Gln	Glu	Arg	Ala	Pro	Ala
					85				90			95			

Trp	Glu	Leu	Leu	Gly	Pro	Glu	Ser	Glu	Gln	Arg	Leu	Arg	Glu	Tyr	Thr
						100		105				110			

Ala	Gln	Gly	Leu	Gln	Ser	Leu	Ala	Ser	Ser	His	Arg	Trp	Arg	Gln	Phe
					115		120				125				

Lys	Thr	Glu	Gly	Lys	Met	Arg	Gly	Gly	Ala	Ser	Pro	Leu	Pro	Trp	Leu
					130		135				140				

Ile	Cys	Phe	Trp	Leu	Cys	Ser	Tyr	Lys	Gly	Ser	Asp	Asn	Ser	Leu	Lys
					145		150			155			160		

Pro	Val	Val	Pro	Gly	Pro	Thr	Leu	Cys	Pro	Gln	Ser	Leu	Val	Ser	Pro
						165		170			175				

Ser	Val	His	Pro	Ser	Thr	Arg	Ser	Ala	Ser	Leu	Gly	Arg	His	Arg	Ala
					180				185			190			

Glu	Ala	Ala													
		195													

&lt;210&gt; 329

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 329

Met	Pro	Gly	Ile	Leu	Ala	Gly	Ile	Pro	Val	Lys	Asp	Leu	Cys	Leu	Ser
1					5				10				15		

Leu	Leu	Gln	Gly	Phe	Arg	Leu	Leu	Leu	Cys	Val	Cys	Pro	Gly	Trp	
					20			25				30			

Leu	Ser	Gly	Trp	Met	Gly	Gly	Gln	Lys	Gly	Ser	Pro	Arg	Ile	Val	Asp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

35

40

45

Ile Gly  
50

<210> 330  
<211> 90  
<212> PRT  
<213> Homo sapiens

<400> 330  
Ala Lys Gly Glu Glu Arg Lys Glu Ala Phe Ser Leu Lys Met Val Gln  
1 5 10 15

Leu Ser Ser Glu Pro Ile Ser Phe Gly Leu Met Tyr Leu Tyr Leu Gly  
20 25 30

Val Phe Phe His Leu Ile Tyr Pro Gly Ala Leu Ser Ile Thr Thr Leu  
35 40 45

Gly Lys His Ser His Pro Phe Phe Thr Ala Glu Gln Asn Ser Thr Val  
50 55 60

Trp Met Glu His Thr Leu Phe His Gln Ser Pro Val Ala Ser His Leu  
65 70 75 80

Val Cys Phe Gln Ser Phe Ala Phe Ser Glu  
85 90

<210> 331  
<211> 56  
<212> PRT  
<213> Homo sapiens

<400> 331  
Gly Pro Ala His Pro Ala Ser Pro Pro Leu Met Thr Leu Ser Leu Gln  
1 5 10 15

Leu Ala Glu Leu Val His Phe Val Cys Ala Phe Gln Ser Gln Trp Thr  
20 25 30

Gly Val Tyr Pro Met Met Pro Pro Leu Lys Pro Thr Glu Pro Leu Cys  
35 40 45

Phe Ala Cys Val Pro Cys Arg Val  
50 55

<210> 332  
<211> 18  
<212> PRT  
<213> Homo sapiens

<400> 332  
Met Leu Leu Glu Val Tyr Gly Asp Ser Ile Ser Val Thr Val Ala Ile  
1 5 10 15

Pro Leu

<210> 333  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 333  
Met His Ser Pro Cys Gln Ser Lys Ala Ala Asp Gly Leu Gly Lys Ser  
1 5 10 15

Glu Thr Glu

<210> 334  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 334  
Met Leu Lys Ser Leu Gly Leu Ser Thr Asn  
1 5 10

<210> 335  
<211> 200  
<212> PRT  
<213> Homo sapiens

<400> 335  
Ala Gln Arg Leu Ala Glu Glu Cys Phe Tyr Met Leu Leu Glu Val Tyr  
1 5 10 15

Gly Asp Ser Ile Ser Val Thr Val Ala Ile Pro Leu Met His Ser Pro  
20 25 30

Cys Gln Ser Lys Ala Ala Asp Gly Leu Gly Lys Ser Glu Thr Glu Met  
35 40 45

Leu Lys Ser Leu Gly Leu Ser Thr Asn Met Ser Pro Phe His Leu Leu  
50 55 60

Gly Leu Lys Val Phe Leu Thr Trp Ala Leu Thr Leu Ala Gln Ile Cys  
65 70 75 80

Leu Tyr Phe Phe Glu Val Gln Pro Leu Gly Leu Leu Ala Leu Asn Phe  
85 90 95

Phe Cys Thr Ala Thr Ala Gly Leu Lys Glu Leu Cys Met His Pro Pro  
100 105 110

Ser Leu Ala Phe Thr Pro Glu Phe His Thr Ser Leu Ser Pro Leu Ala  
115 120 125

Ile Pro Ser Phe Cys Gly Thr Ser Val Ser Leu Ser Asn Ser His Thr  
130 135 140

Ile Pro Leu Ser Leu Tyr Leu Pro Phe Pro Ser Lys Ser Arg Met Pro  
145 150 155 160

Asp Thr Leu His Leu Leu Val His Ser Leu Pro Leu Val His Ser Gln  
165 170 175

Val Leu Pro Val Lys Asp Val Thr Ile Glu Trp Pro Leu Cys Gln Arg  
180 185 190

Cys Leu Gly Ser Thr Cys His Gln  
195 200

<210> 336

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 336

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Val Gln Val Ser Leu  
1 5 10 15

Phe Gln Met Phe Cys Phe Ser Ser Ile Phe Cys Ser His Glu His Thr  
20 25 30

His Leu Pro Gly Thr Phe Trp Leu Phe Leu Phe Leu Phe Leu Ile Leu  
35 40 45

Pro Pro Ser Cys Pro Cys Phe Leu Pro Phe Ser Leu Ala Ile Glu Thr  
50 55 60

Val Arg Trp Pro Cys Trp His His Pro Thr Ser Phe Glu Leu Cys Tyr  
65 70 75 80

Pro Gly Thr Ser Ile Tyr Tyr Ala Ser Arg Gly Gly Pro Xaa Pro Asn  
85 90 95

Ser Glu Xaa

<210> 337

<211> 96

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 337

Xaa	Asn	Xaa	Lys	Ser	Pro	Leu	Thr	Ile	Gly	Asn	Lys	Ser	Trp	Ser	Ser
1			5					10					15		

Thr	Ala	Val	Ala	Ala	Ala	Leu	Glu	Leu	Val	Asp	Pro	Pro	Gly	Cys	Arg
			20					25					30		

Asn	Ser	Ala	Arg	Asp	Ser	Pro	Glu	Leu	Val	His	Leu	Gly	Lys	Gly	Arg
		35				40						45			

Pro	Arg	Lys	Leu	Met	Thr	Tyr	Leu	Phe	Cys	Ser	Ser	Ile	Ser	Leu	Leu
	50					55						60			

Leu	Leu	Lys	Val	His	Ser	Ser	Gly	His	Gln	Asp	Ile	Arg	Lys	Ala	Lys
	65				70				75				80		

Ser	Lys	Val	Pro	Arg	Leu	Leu	Ile	Ile	Gln	Cys	Pro	Gln	Gln	Arg	Glu
			85					90					95		

&lt;210&gt; 338

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 338

Gly	Pro	Glu	Glu	Asn	Leu	Ser	Pro	Ser	Thr	Pro	Ser	Gln	Met	Pro	Thr
1				5					10				15		

Ile	Trp	Val	Lys	Leu	Cys	Leu	Leu	Gln	Val	Cys	His	Gly	Leu	Phe	Pro
		20				25						30			

Leu	Leu	Lys	His	Trp	Ser	Gln	Pro	Met	Pro	Leu	Cys	Val	Thr	Leu	Ala
		35				40						45			

Pro	Val	Ser	Tyr	Trp	Leu										
		50													

&lt;210&gt; 339

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 339

Pro	Arg	Val	Arg	Lys	Glu	Pro	Glu	Ala	Met	Gln	Trp	Leu	Arg	Val	Arg
1				5					10				15		

Glu Ser Pro Gly Glu Ala Thr Gly His Arg Val Thr Met Gly Thr Ala  
20 25 30

Ala Leu Gly Pro Val Trp Ala Ala Leu Leu Leu Phe Leu Leu Met Cys  
35 40 45

Glu Ile Pro Met Val Glu Leu Thr Phe Asp Arg Ala Val Ala Ser Asp  
50 55 60

Cys Gln Arg Cys Cys Asp Ser Glu Asp Pro Leu Asp Pro Ala His Val  
65 70 75 80

Ser Ser Ala Ser Ser Ser Gly Arg Pro His Ala Leu Pro Glu Ile Arg  
85 90 95

Pro Tyr Ile Asn Ile Thr Ile Leu Lys Gly Asp Lys Gly Asp Pro Gly  
100 105 110

Pro Met Gly Leu Pro Gly Tyr Met Gly Arg Glu Gly Pro Gln Gly Glu  
115 120 125

Pro Gly Pro Gln Gly Ser Lys Gly Asp Lys Gly Glu Met Gly Ser Pro  
130 135 140

Gly Ala Pro Cys Gln Lys Arg Phe Phe Ala Phe Ser Val Gly Arg Lys  
145 150 155 160

Thr Ala Leu His Ser Gly Glu Asp Phe Gln Thr Leu Leu Phe Glu Arg  
165 170 175

Val Phe Val Asn Leu Asp Gly Cys Phe Asp Met Ala Thr Gly Gln Phe  
180 185 190

Ala Ala Pro Leu Arg Gly Ile Tyr Phe Phe Ser Leu Asn Val His Ser  
195 200 205

Trp Asn Tyr Lys Glu Thr Tyr Val His Ile Met His Asn Gln Lys Glu  
210 215 220

Ala Val Ile Leu Tyr Ala Gln Pro Ser Glu Arg Ser Ile Met Gln Ser  
225 230 235 240

Gln Ser Val Met Leu Asp Leu Ala Tyr Gly Asp Arg Val Trp Val Arg  
245 250 255

Leu Phe Lys Arg Gln Arg Glu Asn Ala Ile Tyr Ser Asn Asp Phe Asp  
260 265 270

Thr Tyr Ile Thr Phe Ser Gly His Leu Ile Lys Ala Glu Asp Asp  
275 280 285

<210> 340  
<211> 339  
<212> PRT  
<213> Homo sapiens

<400> 340  
Met Leu Tyr Pro Gly Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro

1	5	10	15
Val	Leu	Leu	Gln
Gly	Gln	Ala	Arg
20	25	30	
Leu	Leu	Ala	Cys
Arg	Ala	Lys	Asn
35	40	45	Thr
Leu	Leu	Cys	Met
Asp	Gly	Asn	Phe
Val	Asp	Arg	
Arg	Gly	Gly	
Thr	Ala	Glu	
50	55	60	
Pro	Gln	Gly	
Gly	Lys	Leu	
65	70	75	80
Asn	Ala	Gly	
Phe	Tyr	Glu	
75	80	85	
Tyr	Ser	Val	
Val	Leu	Gly	
Gly	Trp	Asn	
85	90	95	
Asn	His	Pro	
Gly	Pro	Gly	
95	100	105	110
Asp	Val	Val	
Val	Gln	Phe	
115	120	125	
Ala	Ile	Ile	
Tyr	Ala	Trp	
130	135	140	
Ser	Ser	Ile	
Thr	Gly	Gly	
145	150	155	160
Phe	Asp	Asp	
Asp	Leu	Val	
165	170	175	
Leu	Pro	Leu	
Arg	Pro	Asp	
180	185	190	
Val	Val	Arg	
Thr	Arg	Thr	
195	200	205	
Val	Val	Ile	
Asp	Ile	Arg	
210	215	220	
Gly	Gly	Arg	
Asn	Asn	Arg	
225	230	235	240
Arg	Val	Met	
Val	Ala	Glu	
245	250	255	
Glu	Glu	Gly	
Ala	Ser	Leu	
Ser	Gln	Glu	
260	265	270	
Glu	Glu	Ala	
Asp	Trp	Glu	
275	280	285	
Trp	Cys	Arg	
Gly	Leu	Ser	
290	295	300	
Arg	Arg	Leu	
Gln	Leu	Ala	
305	310	315	320
Phe	Phe	Arg	
Leu	Leu	Lys	
Asn	Asn	His	
Phe	His	Asn	

Glu Ala Thr His Cys Thr Pro Leu Pro Ala Gln Asn Phe Gln Met Pro  
325 330 335  
Trp His Leu

<210> 341  
<211> 127  
<212> PRT  
<213> *Homo sapiens*

<400> 341  
 Val Cys Pro Lys Trp Cys Arg Phe Leu Thr Met Leu Gly His Cys Cys  
   1               5                   10                   15

Tyr Phe Trp Gln Val Trp Pro Ala Ser Glu Ala Leu Ala Ala Gly Pro  
20 25 30

Thr Pro Ser Thr Gly Ser Ser Ser Pro Ser Trp Lys Gln His Ile Gly  
35 40 45

Thr Ser Leu Gln Lys Thr Arg Gly Ser Leu Pro Thr Thr Thr Leu Thr  
50 55 60

Ser Gly Ala Gly Gln Ser Thr Ser Thr Gly Lys Asn Pro Ala Ala Gly  
65                   70                   75                   80

Arg Ser Leu Glu Gly Ala Leu Pro Ala Gly Val Trp Pro Cys Phe Ala  
85 90 95

Gln Ser Pro Cys Thr Gly Gly Gln Gln Thr Pro Ser Ser Thr Gly Leu  
           100                 105                 110

Arg Ser Cys Leu Val Arg Ser Pro Ala Thr Trp Trp Arg Thr Pro  
115 120 125

<210> 342  
<211> 554  
<212> PRT  
<213> *Homo sapiens*

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (109)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 342  
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ile Tyr Arg Glu Xaa  
1 5 10 15

Asp Ser Glu Arg Ala Pro Ala Ser Val Pro Glu Thr Pro Thr Ala Val  
20 25 30

Thr Ala Pro His Ser Ser Ser Trp Asp Thr Tyr Tyr Gln Pro Arg Ala  
35 40 45

Leu Glu Lys His Ala Asp Ser Ile Leu Ala Leu Ala Ser Val Phe Trp  
50 55 60

Ser Ile Ser Tyr Tyr Ser Ser Pro Phe Ala Phe Phe Tyr Leu Tyr Arg  
65 70 75 80

Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe Ser His Tyr Ala  
85 90 95

Gly Thr Leu Leu Leu Leu Ala Gly Val Ala Cys Xaa Arg Gly Ile  
100 105 110

Gly Arg Trp Thr Asn Pro Gln Tyr Arg Gln Phe Ile Thr Ile Leu Glu  
115 120 125

Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg Gln Leu Ala Asn  
130 135 140

Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe His Trp Glu Glu  
145 150 155 160

Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser Arg Arg Gly Val  
165 170 175

Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr Ala Asp Thr Leu  
180 185 190

Leu Asn Arg Val Lys Lys Leu Pro Cys Gln Ile Thr Ser Tyr Leu Val  
195 200 205

Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly Ser Val Tyr Leu  
210 215 220

Leu Gln Lys Ala Leu Met Pro Val Leu Leu Gln Gly Gln Ala Arg Leu  
225 230 235 240

Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu Ala Cys Asp Gly  
245 250 255

Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly Thr Ala Glu Pro  
260 265 270

Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn Ala Gly Phe Tyr  
275 280 285

Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly Tyr Ser Val Leu  
290 295 300

Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly Val Pro Phe Pro  
305 310 315 320

Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln Phe Ala Ile His  
325 330 335

Arg Leu Gly Phe Gln Pro Gln Asp Ile Ile Ile Tyr Ala Trp Ser Ile

340

345

350

Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr Pro Asp Val Ser  
355 360 365

Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val Pro Leu Ala Leu  
370 375 380

Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr Arg Thr Val Arg  
385 . . . 390 . . . 395 . . . 400

Gln His Leu Asn Leu Asn Asn Ala Glu Gln Leu Cys Arg Tyr Gln Gly  
405 410 415

Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile Ile Thr Thr Thr  
420 425 430

Val Pro Glu Asp Ile Met Ser Asn Arg Gly Asn Asp Leu Leu Leu Lys  
435 440 445

Leu Leu Gln His Arg Tyr Pro Arg Val Met Ala Glu Glu Gly Leu Arg  
450 455 . 460

Ile Tyr Ser Arg Trp Glu Val Glu Glu Asp Trp Cys Leu Ser Val Val Leu  
485 490 .. 495

Arg Ser Tyr Gln Ala Glu His Gly Pro Asp Phe Pro Trp Ser Val Gly  
500 505 510

Glu Asp Met Ser Ala Asp Gly Arg Arg Gln Leu Ala Leu Phe Leu Ala  
515 520 525

Arg Lys His Leu His Asn Phe Glu Ala Thr His Cys Thr Pro Leu Pro  
530 535 540

Ala Gln Asn Phe Gln Met Pro Trp His Leu  
545 550

<210> 343  
<211> 225  
<212> PRT  
<213> Homo

<220>  
<221> SITE  
<222> (5)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 343

His Glu Arg Ala Xaa Gly Pro Ser Arg Gly His Gly Glu Leu Leu Ser  
 1 5 10 15

Cys Val Leu Gly Pro Arg Leu Tyr Lys Ile Tyr Arg Glu Arg Asp Ser  
                   20                   25                   30

230

Glu Arg Ala Pro Ala Ser Val Pro Glu Thr Pro Thr Ala Val Thr Ala  
 35 40 45

Pro His Ser Ser Ser Trp Asp Thr Tyr Tyr Gln Pro Arg Ala Leu Glu  
 50 55 60

Lys His Ala Asp Ser Ile Leu Ala Leu Ala Ser Val Phe Trp Ser Ile  
 65 70 75 80

Ser Tyr Tyr Ser Ser Pro Phe Ala Phe Phe Tyr Leu Tyr Arg Lys Gly  
 85 90 95

Tyr Leu Ser Leu Ser Lys Val Val Pro Phe Ser His Tyr Ala Gly Thr  
 100 105 110

Leu Leu Leu Leu Ala Gly Val Ala Cys Ser Glu Ala Leu Ala Ala  
 115 120 125

Gly Pro Thr Pro Ser Thr Gly Ser Ser Ser Pro Ser Trp Lys Gln His  
 130 135 140

Ile Gly Thr Ser Leu Gln Lys Thr Arg Gly Ser Leu Pro Thr Thr Thr  
 145 150 155 160

Leu Thr Ser Gly Ala Gly Gln Ser Thr Ser Thr Gly Lys Asn Pro Ala  
 165 170 175

Ala Gly Arg Ser Leu Glu Gly Ala Leu Pro Ala Gly Val Trp Pro Cys  
 180 185 190

Phe Ala Gln Ser Pro Cys Thr Gly Gly Gln Gln Thr Pro Ser Ser Thr  
 195 200 205

Gly Leu Arg Ser Cys Leu Val Arg Ser Pro Ala Thr Trp Trp Arg Thr  
 210 215 220

Pro  
225

<210> 344  
 <211> 299  
 <212> PRT  
 <213> Homo sapiens

<400> 344  
 Met Phe Lys Arg His Gln Arg Leu Lys Lys Asp Ser Thr Gln Ala Glu  
 1 5 10 15

Glu Asp Leu Ser Glu Gln Glu Gln Asn Gln Leu Asn Val Leu Lys Lys  
 20 25 30

His Gly Tyr Val Val Gly Arg Val Gly Arg Thr Phe Leu Tyr Ser Glu  
 35 40 45

Glu Gln Lys Asp Asn Ile Pro Phe Glu Phe Asp Ala Asp Ser Leu Ala  
 50 55 60

Phe Asp Met Glu Asn Asp Pro Val Met Gly Thr His Lys Ser Thr Lys

65

70

75

80

Gln Val Glu Leu Thr Ala Gln Asp Val Lys Asp Ala His Trp Phe Tyr  
 85 90 95

Asp Thr Pro Gly Ile Thr Lys Glu Asn Cys Ile Leu Asn Leu Leu Thr  
 100 105 110

Glu Lys Glu Val Asn Ile Val Leu Pro Thr Gln Ser Ile Val Pro Arg  
 115 120 125

Thr Phe Val Leu Lys Pro Gly Met Val Leu Phe Leu Gly Ala Ile Gly  
 130 135 140

Arg Ile Asp Phe Leu Gln Gly Asn Gln Ser Ala Trp Phe Thr Val Val  
 145 150 155 160

Ala Ser Asn Ile Leu Pro Val His Ile Thr Ser Leu Asp Arg Ala Asp  
 165 170 175

Ala Leu Tyr Gln Lys His Ala Gly His Thr Leu Leu Gln Ile Pro Met  
 180 185 190

Gly Gly Lys Glu Arg Met Ala Gly Phe Pro Pro Leu Val Ala Glu Asp  
 195 200 205

Ile Met Leu Lys Glu Gly Leu Gly Ala Ser Glu Ala Val Ala Asp Ile  
 210 215 220

Lys Phe Ser Ser Ala Gly Trp Val Ser Val Thr Pro Asn Phe Lys Asp  
 225 230 235 240

Arg Leu His Leu Arg Gly Tyr Thr Pro Glu Gly Thr Val Leu Thr Val  
 245 250 255

Arg Pro Pro Leu Leu Pro Tyr Ile Val Asn Ile Lys Gly Gln Arg Ile  
 260 265 270

Lys Lys Ser Val Ala Tyr Lys Thr Lys Lys Pro Pro Ser Leu Met Tyr  
 275 280 285

Asn Val Arg Lys Lys Lys Gly Lys Ile Asn Val  
 290 295

<210> 345

<211> 314

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (211)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 345  
Met Leu Pro Ala Arg Leu Pro Phe Arg Leu Leu Ser Leu Phe Leu Arg  
1 5 10 15  
Gly Ser Ala Pro Thr Ala Ala Arg His Gly Leu Arg Glu Pro Leu Leu  
20 25 30  
Glu Arg Arg Cys Ala Ala Ser Ser Phe Gln His Ser Ser Ser Leu  
35 40 45  
Gly Arg Glu Leu Pro Tyr Asp Pro Val Asp Thr Glu Gly Phe Gly Glu  
50 55 60  
Gly Gly Asp Met Gln Glu Arg Phe Leu Phe Pro Glu Tyr Ile Leu Asp  
65 70 75 80  
Pro Glu Pro Gln Pro Thr Arg Glu Lys Gln Leu Gln Glu Leu Gln Gln  
85 90 95  
Gln Gln Glu Glu Glu Glu Arg Gln Arg Gln Arg Arg Glu Glu Arg  
100 105 110  
Arg Gln Gln Asn Leu Arg Ala Arg Ser Arg Glu His Pro Val Val Gly  
115 120 125  
His Pro Asp Pro Ala Leu Pro Pro Ser Gly Val Asn Cys Ser Gly Cys  
130 135 140  
Gly Ala Xaa Leu His Cys Gln Asp Ala Gly Val Pro Gly Tyr Leu Pro  
145 150 155 160  
Arg Glu Lys Phe Leu Arg Thr Ala Glu Ala Asp Gly Gly Leu Ala Arg  
165 170 175  
Thr Val Cys Gln Arg Cys Trp Leu Leu Ser His His Arg Arg Ala Leu  
180 185 190  
Arg Leu Gln Val Ser Arg Glu Gln Tyr Leu Glu Leu Val Ser Ala Ala  
195 200 205  
Leu Arg Xaa Pro Gly Pro Ser Leu Val Leu Tyr Met Val Asp Leu Leu  
210 215 220  
Asp Leu Pro Asp Ala Leu Leu Pro Asp Leu Pro Ala Leu Val Gly Pro  
225 230 235 240  
Lys Gln Leu Ile Val Leu Gly Asn Lys Val Asp Leu Leu Pro Gln Asp  
245 250 255  
Ala Pro Gly Tyr Arg Gln Arg Leu Arg Glu Arg Leu Trp Glu Asp Cys  
260 265 270  
Ala Arg Ala Gly Leu Leu Leu Ala Pro Gly Thr Lys Gly His Ser Ala  
275 280 285  
Pro Ser Arg Thr Ser His Arg Thr Gly Arg Ile Arg Ile Arg Arg Thr  
290 295 300

Gly Pro Ala Gln Trp Ser Gly Thr Cys Gly  
305 310

<210> 346  
<211> 380  
<212> PRT  
<213> Homo sapiens

<400> 346  
Pro Ser Phe Arg Arg Glu Arg Val Glu Thr Gly Gly Gly Pro Val  
1 5 10 15

Thr His Gly Thr Glu Gly Pro Phe Leu Pro Leu Pro Gly Gly Thr Arg  
20 25 30

Met Asn Met Thr Gln Ala Arg Val Leu Val Ala Ala Val Val Gly Leu  
35 40 45

Val Ala Val Leu Leu Tyr Ala Ser Ile His Lys Ile Glu Glu Gly His  
50 55 60

Leu Ala Val Tyr Tyr Arg Gly Gly Ala Leu Leu Thr Ser Pro Ser Gly  
65 70 75 80

Pro Gly Tyr His Ile Met Leu Pro Phe Ile Thr Thr Phe Arg Ser Val  
85 90 95

Gln Thr Thr Leu Gln Thr Asp Glu Val Lys Asn Val Pro Cys Gly Thr  
100 105 110

Ser Gly Gly Val Met Ile Tyr Ile Asp Arg Ile Glu Val Val Asn Met  
115 120 125

Leu Ala Pro Tyr Ala Val Phe Asp Ile Val Arg Asn Tyr Thr Ala Asp  
130 135 140

Tyr Asp Lys Thr Leu Ile Phe Asn Lys Ile His His Glu Leu Asn Gln  
145 150 155 160

Phe Cys Ser Ala His Thr Leu Gln Glu Val Tyr Ile Glu Leu Phe Asp  
165 170 175

Gln Ile Asp Glu Asn Leu Lys Gln Ala Leu Gln Lys Asp Leu Asn Leu  
180 185 190

Met Ala Pro Gly Leu Thr Ile Gln Ala Val Arg Val Thr Lys Pro Lys  
195 200 205

Ile Pro Glu Ala Ile Arg Arg Asn Phe Glu Leu Met Glu Ala Glu Lys  
210 215 220

Thr Lys Leu Leu Ile Ala Ala Gln Lys Gln Lys Val Val Glu Lys Glu  
225 230 235 240

Ala Glu Thr Glu Arg Lys Lys Ala Val Ile Glu Ala Glu Lys Ile Ala  
245 250 255

Gln Val Ala Lys Ile Arg Phe Gln Gln Lys Val Met Glu Lys Glu Thr

260

265

270

Glu Lys Arg Ile Ser Glu Ile Glu Asp Ala Ala Phe Leu Ala Arg Glu  
 275                    280                    285

Lys Ala Lys Ala Asp Ala Glu Tyr Tyr Ala Ala His Lys Tyr Ala Thr  
 290                    295                    300

Ser Asn Lys His Lys Leu Thr Pro Glu Tyr Leu Glu Leu Lys Lys Tyr  
 305                    310                    315                    320

Gln Ala Ile Ala Ser Asn Ser Lys Ile Tyr Phe Gly Ser Asn Ile Pro  
 325                    330                    335

Asn Met Phe Val Asp Ser Ser Cys Ala Leu Lys Tyr Ser Asp Ile Arg  
 340                    345                    350

Thr Gly Arg Glu Ser Ser Leu Pro Ser Lys Glu Ala Leu Glu Pro Ser  
 355                    360                    365

Gly Glu Asn Val Ile Gln Asn Lys Glu Ser Thr Gly  
 370                    375                    380

&lt;210&gt; 347

&lt;211&gt; 422

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (328)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 347

Trp Ser Thr Gly Asn Ala Ser Trp Glu Lys Lys Asp Asn Phe Ile Leu  
 1                    5                    10                    15

Ser Ala Asp Phe Glu Met Met Gly Leu Gly Asn Gly Arg Arg Ser Met  
 20                    25                    30

Lys Ser Pro Pro Leu Val Leu Ala Ala Leu Val Ala Cys Ile Ile Val  
 35                    40                    45

Leu Gly Phe Asn Tyr Trp Ile Ala Ser Ser Arg Ser Val Asp Leu Gln  
 50                    55                    60

Thr Arg Ile Met Glu Leu Glu Gly Arg Val Arg Arg Arg Ala Ala Glu  
 65                    70                    75                    80

Arg Gly Ala Val Glu Leu Lys Lys Asn Glu Phe Gln Gly Glu Leu Glu  
 85                    90                    95

Lys Gln Arg Glu Gln Leu Asp Lys Ile Gln Ser Ser His Asn Phe Gln  
 100                    105                    110

Leu Glu Ser Val Asn Lys Leu Tyr Gln Asp Glu Lys Ala Val Leu Val  
 115                    120                    125

Asn Asn Ile Thr Thr Gly Glu Arg Leu Ile Arg Val Leu Gln Asp Gln  
130 135 140

Leu Lys Thr Leu Gln Arg Asn Tyr Gly Arg Leu Gln Gln Asp Val Leu  
145 150 155 160

Gln Phe Gln Lys Asn Gln Thr Asn Leu Glu Arg Lys Phe Ser Tyr Asp  
165 170 175

Leu Ser Gln Cys Ile Asn Gln Met Lys Glu Val Lys Glu Gln Cys Glu  
180 185 190

Glu Arg Ile Glu Glu Val Thr Lys Lys Gly Asn Glu Ala Val Ala Ser  
195 200 205

Arg Asp Leu Ser Glu Asn Asn Asp Gln Arg Gln Gln Leu Gln Ala Leu  
210 215 220

Ser Glu Pro Gln Pro Arg Leu Gln Ala Ala Gly Leu Pro His Thr Glu  
225 230 235 240

Val Pro Gln Gly Lys Gly Asn Val Leu Gly Asn Ser Lys Ser Gln Thr  
245 250 255

Pro Ala Pro Ser Ser Glu Val Val Leu Asp Ser Lys Arg Gln Val Glu  
260 265 270

Lys Glu Glu Thr Asn Glu Ile Gln Val Val Asn Glu Glu Pro Gln Arg  
275 280 285

Asp Arg Leu Pro Gln Glu Pro Gly Arg Glu Gln Val Val Glu Asp Arg  
290 295 300

Pro Val Gly Gly Arg Gly Phe Gly Gly Ala Gly Glu Leu Gly Gln Thr  
305 310 315 320

Pro Gln Val Gln Ala Ala Leu Xaa Val Ser Gln Glu Asn Pro Glu Met  
325 330 335

Glu Gly Pro Glu Arg Asp Gln Leu Val Ile Pro Asp Gly Gln Glu Glu  
340 345 350

Glu Gln Glu Ala Ala Gly Glu Gly Arg Asn Gln Gln Lys Leu Arg Gly  
355 360 365

Glu Asp Asp Tyr Asn Met Asp Glu Asn Glu Ala Glu Ser Glu Thr Asp  
370 375 380

Lys Gln Ala Ala Leu Ala Gly Asn Asp Arg Asn Ile Asp Val Phe Asn  
385 390 395 400

Val Glu Asp Gln Lys Arg Asp Thr Ile Asn Leu Leu Asp Gln Arg Glu  
405 410 415

Lys Arg Asn His Thr Leu  
420

<211> 14  
<212> PRT  
<213> Homo sapiens

<400> 348  
Ser Leu His Arg Phe Val Leu Ser Gln Ala Lys Asp Glu Leu  
1 5 10

<210> 349  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 349  
Phe Ile Lys Phe Phe Ala Pro Trp Cys Gly His Cys Lys Ala Leu Ala  
1 5 10 15

Pro Thr Trp

<210> 350  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 350  
Phe Ile Lys Phe Tyr Ala Pro Trp Cys Gly His Cys Lys Thr Leu Ala  
1 5 10 15

Pro Thr Trp

<210> 351  
<211> 363  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (42)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 351  
Arg Arg Gly Arg Gly Val Pro Gly Pro Arg Gly Arg Arg Arg Leu Trp  
1 5 10 15

Ser Ala Ala Cys Gly His Cys Gln Arg Leu Gln Pro Thr Trp Asn Asp  
20 25 30

Leu Gly Asp Lys Tyr Asn Ser Met Glu Xaa Ala Lys Val Tyr Val Ala  
35 40 45

Lys Val Asp Cys Thr Ala His Ser Asp Val Cys Ser Ala Gln Gly Val  
50 55 60

Arg Gly Tyr Pro Thr Leu Lys Leu Phe Lys Pro Gly Gln Glu Ala Val

65	70	75	80
Lys	Tyr	Gln	Gly
85			Pro
	Arg	Asp	Phe
		Gln	Thr
			Leu
			Glu
			Asn
			Trp
			Met
			Leu
			95
Gln	Thr	Leu	Asn
100		Glu	Glu
		Pro	Val
		Thr	Pro
		Glu	Pro
			Glu
			Pro
Pro	Ser	Ala	Pro
115		Glu	Glu
		Leu	Leu
		Lys	Gln
		Gly	Leu
		Tyr	Tyr
		Glu	Leu
		Ser	Ser
		Ala	Ala
			Ser
Asn	Phe	Glu	Leu
130		His	His
		Val	Ala
		Gln	Gly
			Asp
			His
			Phe
			Ile
			Lys
			Phe
Ala	Pro	Trp	Cys
145		Gly	His
		Cys	Lys
		Ala	Leu
		Ala	Pro
			Thr
			Trp
			Glu
			Gln
Leu	Ala	Leu	Gly
165		Glu	His
		Ser	Glu
		Thr	Val
		Lys	Ile
		Gly	Gly
		Lys	Val
Asp	Cys	Thr	Gln
180		His	Tyr
		Glu	Leu
		Cys	Cys
		Ser	Gly
		Asn	Gln
			Val
			Arg
			Gly
Tyr	Pro	Thr	Leu
195		Leu	Trp
		Phe	Arg
		Asp	Gly
		Lys	Lys
		Val	Asp
			Gln
			Tyr
Lys	Gly	Lys	Arg
210		Asp	Leu
		Glu	Glu
		Ser	Leu
		Arg	Glu
		Tyr	Val
		Glu	Asp
		Ser	Gln
Leu	Gln	Arg	Thr
225		Glu	Gly
		Thr	Ala
		Glu	Thr
		Thr	Val
		Val	Thr
		Thr	Pro
		Pro	Ser
			Glu
Ala	Pro	Val	Leu
245		Ala	Ala
		Glu	Pro
		Ala	Glu
		Asp	Asp
		Lys	Gly
			Thr
			Val
Ala	Leu	Thr	Glu
260		Asn	Asn
		Phe	Phe
		Asp	Asp
		Thr	Ile
		Ile	Ala
		Glu	Gly
		Ile	Ile
Phe	Ile	Lys	Phe
275		Tyr	Tyr
		Ala	Pro
		Trp	Trp
		Cys	Cys
		Gly	His
		Cys	Lys
			Thr
			Leu
			Ala
Pro	Thr	Trp	Glu
290		Glu	Leu
		Ser	Ser
		Lys	Lys
		Glu	Glu
		Pro	Asp
			Gly
			Leu
			Ala
			Gly
Val	Lys	Ile	Ala
305		Glu	Glu
		Val	Asp
		Cys	Cys
		Thr	Ala
		Glu	Arg
		Arg	Asn
		Ile	Ile
		Cys	Ser
Lys	Tyr	Ser	Val
325		Arg	Gly
		Tyr	Tyr
		Pro	Thr
		Leu	Leu
		Leu	Leu
		Phe	Arg
		Arg	Gly
		Gly	Gly
Lys	Lys	Val	Ser
340		Glu	His
		Ser	Ser
		Gly	Gly
		Arg	Asp
		Asp	Leu
		Ser	Asp
		Leu	Asp
			Ser
			Leu
			His
Arg	Phe	Val	Leu
355		Ser	Ser
		Gln	Ala
		Lys	Lys
		Asp	Asp
		Glu	Glu

<210> 352  
<211> 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 352

Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu Arg Gly Leu  
1 5 10 15

Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala Ser Glu  
20 25 30

Ile Pro Lys Gly Lys Gln Lys Ala His Ser Gly Arg Gly Arg Trp Trp  
35 40 45

Thr Cys Ile Met Glu Cys Ala Tyr Lys Gly Gln Gln Glu Cys Leu Val  
50 55 60

Glu Thr Gly Ala Leu Gly Pro Met Ala Phe Arg Val His Leu Gly Ser  
65 70 75 80

Gln Val Gly Met Asp Ser Lys Glu Lys Arg Gly Asn Val  
85 90

&lt;210&gt; 353

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (210)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 353

Glu Thr Arg Val Lys Thr Ser Leu Glu Leu Leu Arg Thr Gln Leu Glu  
1 5 10 15

Pro Thr Gly Thr Val Gly Asn Thr Ile Met Thr Ser Gln Pro Val Pro  
20 25 30

Asn Glu Thr Ile Ile Val Leu Pro Ser Asn Val Ile Asn Phe Ser Gln  
35 40 45

Ala Glu Lys Pro Glu Pro Thr Asn Gln Gly Gln Asp Ser Leu Lys Lys  
50 55 60

His Leu His Ala Glu Ile Lys Val Ile Gly Thr Ile Gln Ile Leu Cys  
65 70 75 80

Gly Met Met Val Leu Ser Leu Gly Ile Ile Leu Ala Ser Ala Ser Phe  
85 90 95

Ser Pro Asn Phe Thr Gln Val Thr Ser Thr Leu Leu Asn Ser Ala Tyr  
100 105 110

Pro Phe Ile Gly Pro Phe Phe Phe Ile Ile Ser Gly Ser Leu Ser Ile  
115 120 125

Ala Thr Glu Lys Arg Leu Thr Lys Leu Leu Val His Ser Ser Leu Val

130	135	140
Gly Ser Ile Leu Ser Ala Leu Ser Ala Leu Val Gly Phe Ile Ile Leu		
145	150	155
Ser Val Lys Gln Ala Thr Leu Asn Pro Ala Ser Leu Gln Cys Glu Leu		
165	170	175
Asp Lys Asn Asn Ile Pro Thr Arg Ser Tyr Val Ser Tyr Phe Tyr His		
180	185	190
Asp Ser Leu Tyr Thr Thr Asp Cys Tyr Thr Ala Lys Ala Ser Leu Ala		
195	200	205
Gly Xaa Leu Ser Leu Met Leu Ile Cys Thr Leu Leu Glu Phe Cys Leu		
210	215	220
Ala Val Leu Thr Ala Val Leu Arg Trp Lys Gln Ala Tyr Ser Asp Phe		
225	230	235
Pro Gly Ser Val Leu Phe Leu Pro His Ser Tyr Ile Gly Asn Ser Gly		
245	250	255
Met Ser Ser Lys Met Thr His Asp Cys Gly Tyr Glu Glu Leu Leu Thr		
260	265	270

**Ser**

<210> 354  
<211> 192  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (129)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 354  
Met Met Val Leu Ser Leu Gly Ile Ile Leu Ala Ser Ala Ser Phe Ser  
1               5               10               15

Pro Asn Phe Thr Gln Val Thr Ser Thr Leu Leu Asn Ser Ala Tyr Pro  
20               25               30

Phe Ile Gly Pro Phe Phe Ile Ile Ser Gly Ser Leu Ser Ile Ala  
35               40               45

Thr Glu Lys Arg Leu Thr Lys Leu Leu Val His Ser Ser Leu Val Gly  
50               55               60

Ser Ile Leu Ser Ala Leu Ser Ala Leu Val Gly Phe Ile Ile Leu Ser  
65               70               75               80

Val Lys Gln Ala Thr Leu Asn Pro Ala Ser Leu Gln Cys Glu Leu Asp  
85               90               95

Lys Asn Asn Ile Pro Thr Arg Ser Tyr Val Ser Tyr Phe Tyr His Asp  
 100 105 110

Ser Leu Tyr Thr Thr Asp Cys Tyr Thr Ala Lys Ala Ser Leu Ala Gly  
 115 120 125

Xaa Leu Ser Leu Met Leu Ile Cys Thr Leu Leu Glu Phe Cys Leu Ala  
 130 135 140

Val Leu Thr Ala Val Leu Arg Trp Lys Gln Ala Tyr Ser Asp Phe Pro  
 145 150 155 160

Gly Ser Val Leu Phe Leu Pro His Ser Tyr Ile Gly Asn Ser Gly Met  
 165 170 175

Ser Ser Lys Met Thr His Asp Cys Gly Tyr Glu Glu Leu Leu Thr Ser  
 180 185 190

&lt;210&gt; 355

&lt;211&gt; 204

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (119)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 355

Gly Ala Ser Cys Glu Gly Gly Ala Ala Ala Arg Ala Ala Leu Gly  
 1 5 10 15Val His Arg Ser Gln Lys Ala Leu Leu Val Phe Arg Arg Thr Leu Ser  
 20 25 30Asn Leu Leu Tyr Met Pro Leu Leu Arg Gly Leu Leu Trp Leu Gln Val  
 35 40 45Leu Cys Ala Gly Pro Leu His Thr Glu Ala Val Val Leu Leu Val Pro  
 50 55 60Ser Asp Asp Gly Arg Ala Phe Leu Leu Arg Ser Arg Leu Leu His Pro  
 65 70 75 80Glu Ala His Val Pro Pro Ala Ala Asp Arg Gly Ala Ser Leu Gln Cys  
 85 90 95Val Leu His Gln Ala Ala Pro Lys Ser Arg Pro Arg Ser Pro Ala Ala  
 100 105 110Gly Ala Ala Leu Leu His Xaa Pro Arg Arg Thr Gly Asp Glu Pro Cys  
 115 120 125Arg Glu Phe His Gly Asn Gly Phe Pro Gly Pro Thr Gln Leu Thr Pro  
 130 135 140

Gly Glu Cys Gly Leu Pro Ala Pro Ser Ser Leu Leu Gln His Ala Ser  
 145 150 155 160

Ala Pro Val Arg Thr Gly Ser Glu Gly Gln Val Val Gly Cys Pro Arg  
 165 170 175

Ala Arg Gly Glu Thr Gly Glu Gly Leu Ser Leu Ala Phe Leu Ser Ser  
 180 185 190

Leu Met Phe Thr Ser Arg Asn Gly Leu Val Gly Cys  
 195 200

<210> 356

<211> 72

<212> PRT

<213> Homo sapiens

<400> 356

Met Gly Ser Ala Ala Leu Glu Ile Leu Gly Leu Val Leu Cys Leu Val  
 1 5 10 15

Gly Trp Gly Gly Leu Ile Leu Ala Cys Gly Leu Pro Met Trp Gln Val  
 20 25 30

Thr Ala Phe Leu Asp His Asn Ile Val Thr Ala Gln Thr Thr Trp Lys  
 35 40 45

Gly Leu Trp Met Ser Cys Val Val Gln Ser Thr Gly Thr Cys Ser Ala  
 50 55 60

Lys Cys Thr Thr Arg Cys Trp Leu  
 65 70

<210> 357

<211> 115

<212> PRT

<213> Homo sapiens

<400> 357

Leu Lys Arg Ala Pro Pro Gly Pro Ala Leu Ala Lys Gly Leu Leu Gln  
 1 5 10 15

Pro Ser Ser Thr Phe Gln Ala Leu Glu Thr Asn Ile Gly Asp Gln Val  
 20 25 30

Arg Arg His Ser Thr Ala Val Val Ile Arg Glu Met Thr Ser Tyr Ile  
 35 40 45

Leu Ile Ser Phe Val Leu Leu Ile Gly Val Gly Cys Ile Glu Lys Asp  
 50 55 60

Gln Ser Cys Pro Val Phe Gly Gly Arg Lys Arg Leu His Leu Leu Phe  
 65 70 75 80

Val Gly Gly Gln Leu Arg Gln Val Arg Met Leu Arg Gly Glu Leu Ser  
 85 90 95

Cys Ala Cys Tyr Arg Pro His Val Gln Ala Leu Gln Leu Gly Gly Cys  
100 105 110

Thr Cys Phe  
115

<210> 358  
<211> 88  
<212> PRT  
<213> Homo sapiens

<400> 358  
Val Ile Lys Leu Ile Cys Pro Ala Ala Phe Pro Val Tyr Phe Gln Asp  
1 5 10 15

Met Ala Arg Gly Cys Val Cys Ser Leu Cys Ala Ser Val Cys Ile Phe  
20 25 30

Leu Ser Ser Leu Phe Pro Leu Leu Pro Ser Val His Ser Val Asn Ile  
35 40 45

Ile Ser Cys Leu Leu Ser Lys Cys Phe Glu Gly Leu Glu Leu Met  
50 55 60

Cys Glu His Leu Tyr Gln Leu Ser Gln Leu His Val Leu His His Ile  
65 70 75 80

Phe Ser Tyr Leu Leu Cys Thr Pro  
85

<210> 359  
<211> 716  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (373)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (705)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 359  
Tyr Xaa Ile Pro Gly Ser Thr His Ala Ser Gly Arg Gln Arg Gly Ser  
1 5 10 15

Gly Arg Gly Glu Asp Asp Ser Gly Pro Pro Pro Ser Thr Val Ile Asn  
20 25 30

Gln Asn Glu Thr Phe Ala Asn Ile Ile Phe Lys Pro Thr Val Val Gln  
35 40 45

Gln Ala Arg Ile Ala Gln Asn Gly Ile Leu Gly Asp Phe Ile Ile Arg  
50 55 60

Tyr Asp Val Asn Arg Glu Gln Ser Ile Gly Asp Ile Gln Val Leu Asn  
65 70 75 80

Gly Tyr Phe Val His Tyr Phe Ala Pro Lys Asp Leu Pro Pro Leu Pro  
85 90 95

Lys Asn Val Val Phe Val Leu Asp Ser Ser Ala Ser Met Val Gly Thr  
100 105 110

Lys Leu Arg Gln Thr Lys Asp Ala Leu Phe Thr Ile Leu His Asp Leu  
115 120 125

Arg Pro Gln Asp Arg Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys  
130 135 140

Val Trp Lys, Asp His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp  
145 150 155 160

Gly Lys Val Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile  
165 170 175

Asn Gly Val Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr Val Ala  
180 185 190

His Ser Gly Ile Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu Thr  
195 200 205

Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu Asn  
210 215 220

Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr Ile Gly  
225 230 235 240

Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu Ser Leu Glu  
245 250 255

Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Asp Ala Gly Ser  
260 265 270

Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr Pro Leu Leu Ser Asp  
275 280 285

Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val Val Gln Ala Thr Lys Thr  
290 295 300

Leu Phe Pro Asn Tyr Phe Asn Gly Ser Glu Ile Ile Ala Gly Lys  
305 310 315 320

Leu Val Asp Arg Lys Leu Asp His Leu His Val Glu Val Thr Ala Ser  
325 330 335

Asn Ser Lys Lys Phe Ile Ile Leu Lys Thr Asp Val Pro Val Arg Pro

340	345	350
Gln Lys Ala Gly Lys Asp Val Thr Gly Ser Pro Arg Pro Gly Gly Asp		
355	360	365
Gly Glu Gly Asp Xaa Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr		
370	375	380
Thr Lys Glu Leu Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu		
385	390	395
Lys Glu Arg Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg		
405	410	415
Phe Leu Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg		
420	425	430
Met Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro		
435	440	445
Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly Pro		
450	455	460
Leu Leu Lys Lys Pro Tyr Gln Pro Arg Ile Lys Ile Ser Lys Thr Ser		
465	470	475
Val Asp Gly Asp Pro His Phe Val Val Asp Phe Pro Leu Ser Arg Leu		
485	490	495
Thr Val Cys Phe Asn Ile Asp Gly Gln Pro Gly Asp Ile Leu Arg Leu		
500	505	510
Val Ser Asp His Arg Asp Ser Gly Val Thr Val Asn Gly Glu Leu Ile		
515	520	525
Gly Ala Pro Ala Pro Pro Asn Gly His Lys Lys Gln Arg Thr Tyr Leu		
530	535	540
Arg Thr Ile Thr Ile Leu Ile Asn Lys Pro Glu Arg Ser Tyr Leu Glu		
545	550	555
Ile Thr Pro Ser Arg Val Ile Leu Asp Gly Gly Asp Arg Leu Val Leu		
565	570	575
Pro Cys Asn Gln Ser Val Val Val Gly Ser Trp Gly Leu Glu Val Ser		
580	585	590
Val Ser Ala Asn Ala Asn Val Thr Val Thr Ile Gln Gly Ser Ile Ala		
595	600	605
Phe Val Ile Leu Ile His Leu Tyr Lys Lys Pro Ala Pro Phe Gln Arg		
610	615	620
His His Leu Gly Phe Tyr Ile Ala Asn Ser Glu Gly Leu Ser Ser Asn		
625	630	635
Cys His Gly Leu Leu Gly Gln Phe Leu Asn Gln Asp Ala Arg Leu Thr		
645	650	655

Glu Asp Pro Ala Gly Pro Ser Gln Asn Leu Thr His Pro Leu Leu Leu  
 660 665 670

Gln Val Gly Glu Gly Pro Glu Ala Val Leu Thr Val Lys Gly His Gln  
 675 680 685

Val Pro Val Val Trp Lys Gln Arg Lys Ile Tyr Asn Gly Glu Glu Gln  
 690 695 700

Xaa Asp Cys Trp Phe Ala Arg Asn Met Pro Pro Asn  
 705 710 715

<210> 360

<211> 387

<212> PRT

<213> Homo sapiens

<400> 360

Pro Arg Val Arg Ser Ile Lys Val Thr Glu Leu Lys Gly Leu Ala Asn  
 1 5 10 15

His Val Val Val Gly Ser Val Ser Cys Glu Thr Lys Asp Leu Phe Ala  
 20 25 30

Ala Leu Pro Gln Val Val Ala Val Asp Ile Asn Asp Leu Gly Thr Ile  
 35 40 45

Lys Leu Ser Leu Glu Val Thr Trp Ser Pro Phe Asp Lys Asp Asp Gln  
 50 55 60

Pro Ser Ala Ala Ser Ser Val Asn Lys Ala Ser Thr Val Thr Lys Arg  
 65 70 75 80

Phe Ser Thr Tyr Ser Gln Ser Pro Pro Asp Thr Pro Ser Leu Arg Glu  
 85 90 95

Gln Ala Phe Tyr Asn Met Leu Arg Arg Gln Glu Glu Leu Glu Asn Gly  
 100 105 110

Thr Ala Trp Ser Leu Ser Ser Glu Ser Ser Asp Asp Ser Ser Ser Pro  
 115 120 125

Gln Leu Ser Gly Thr Ala Arg His Ser Pro Ala Pro Arg Pro Leu Val  
 130 135 140

Gln Gln Pro Glu Pro Leu Pro Ile Gln Val Ala Phe Arg Arg Pro Glu  
 145 150 155 160

Thr Pro Ser Ser Gly Pro Leu Asp Glu Glu Gly Ala Val Ala Pro Val  
 165 170 175

Leu Ala Asn Gly His Ala Pro Tyr Ser Arg Thr Leu Ser His Ile Ser  
 180 185 190

Glu Ala Ser Val Asn Ala Ala Leu Ala Glu Ala Ser Val Glu Ala Val  
 195 200 205

Gly Pro Lys Ser Leu Ser Trp Gly Pro Ser Pro Pro Thr His Pro Ala

210

215

220

Pro Thr His Gly Lys His Pro Ser Pro Val Pro Pro Ala Leu Asp Pro  
 225                    230                    235                    240

Gly His Ser Ala Thr Ser Ser Thr Leu Gly Thr Thr Gly Ser Val Pro  
 245                    250                    255

Thr Ser Thr Asp Pro Ala Pro Ser Ala His Leu Asp Ser Val His Lys  
 260                    265                    270

Ser Thr Asp Ser Gly Pro Ser Glu Leu Pro Gly Pro Thr His Thr Thr  
 275                    280                    285

Thr Gly Ser Thr Tyr Ser Ala Ile Thr Thr His Ser Ala Pro Ser  
 290                    295                    300

Pro Leu Thr His Thr Thr Gly Ser Thr His Lys Pro Ile Ile Ser  
 305                    310                    315                    320

Thr Leu Thr Thr Gly Pro Thr Leu Asn Ile Ile Gly Pro Val Gln  
 325                    330                    335

Thr Thr Thr Ser Pro Thr His Thr Met Pro Ser Pro Ser His Ser  
 340                    345                    350

Asn Ser Pro Gln Tyr Val Asp Phe Cys Ser Ser Val Cys Asp Asn Ile  
 355                    360                    365

Phe Val His Tyr Val Ile Gly Ile Phe Phe His Thr Leu Tyr Ser Ser  
 370                    375                    380

Lys Thr Leu  
 385

&lt;210&gt; 361

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 361

Pro Arg Val Arg Ser Ile Lys Val Thr Glu Leu Lys Gly Leu Ala Asn  
 1                    5                    10                    15

His Val Val Val Gly Ser Val Ser Cys Glu Thr Lys Asp Leu Phe Ala  
 20                    25                    30

Ala Leu Pro Gln Val Val Ala Val Asp Ile Asn Asp Leu Gly Thr Ile  
 35                    40                    45

Lys Leu Ser Leu Glu Val Thr Trp Ser Pro Phe Asp Lys Asp Asp Gln  
 50                    55                    60

Pro Ser Ala Ala Ser Ser Val Asn Lys Ala Ser Thr Val Thr Lys Arg  
 65                    70                    75                    80

Phe Ser Thr Tyr Ser Gln Ser Pro Pro Asp Thr Pro Ser Leu Arg Glu  
 85                    90                    95

Gln Ala Phe Tyr Asn Met Leu Arg Arg Gln Glu Glu Leu Glu Asn Gly  
 100 105 110  
 Thr Ala Trp Ser Leu Ser Ser Glu Ser Ser Asp Asp Ser Ser Ser Pro  
 115 120 125  
 Gln Leu Ser Gly Thr Ala Arg His Ser Pro Ala Pro Arg Pro Leu Val  
 130 135 140  
 Gln Gln Pro Glu Pro Leu Pro Ile Gln Val Ala Phe Arg Arg Pro Glu  
 145 150 155 160  
 Thr Pro Ser Ser Gly Pro Leu Asp Glu Glu Gly Ala Val Ala Pro Val  
 165 170 175  
 Leu Ala Asn Gly His Ala Pro Tyr Ser Arg Thr Leu Ser His Ile Ser  
 180 185 190  
 Glu Ala Ser Val Asn Ala Ala Leu Ala Glu Ala Ser Val Glu Ala Val  
 195 200 205  
 Gly Pro Lys Ser Leu Ser Trp Gly Pro Ser Pro Pro Thr His Pro Ala  
 210 215 220  
 Pro Thr His Gly Lys His Pro Ser Pro Val Pro Pro Ala Leu Asp Pro  
 225 230 235 240  
 Gly His Ser Ala Thr Ser Ser Thr Leu Gly Thr Thr Gly Ser Val Pro  
 245 250 255  
 Thr Ser Thr Asp  
 260

<210> 362  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 362  
 Tyr Gly Cys Glu Lys Thr Thr Glu Gly Gly Arg Arg Arg Arg Arg  
 1 5 10 15  
 Met Glu Ala Val Val Phe Val Phe Ser Leu Leu Asp Cys Cys Ala Leu  
 20 25 30  
 Ile Phe Leu Ser Val Tyr Phe Ile Ile Thr Leu Ser Asp Leu Glu Cys  
 35 40 45  
 Asp Tyr Ile Asn Ala Arg Ser Cys Cys Ser Lys Leu Asn Lys Trp Val  
 50 55 60  
 Ile Pro Glu Leu Ile Gly His Thr Ile Val Thr Val Leu Leu Leu Met  
 65 70 75 80  
 Ser Leu His Trp Phe Ile Phe Leu Leu Asn Leu Pro Val Ala Thr Trp  
 85 90 95

Asn Ile Tyr Arg Tyr Ile Met Val Pro Ser Gly Asn Met Gly Val Phe  
100 105 110

Asp Pro Thr Glu Ile His Asn Arg Gly Gln Leu Lys Ser His Met Lys  
115 120 125

Glu Ala Met Ile Lys Leu Gly Phe His Leu Leu Cys Phe Phe Met Tyr  
130 135 140

Leu Tyr Ser Met Ile Leu Ala Leu Ile Asn Asp  
145 150 155

<210> 363

<211> 70

<212> PRT

<213> Homo sapiens

<400> 363

Ala Arg Ala Pro Ala Pro Ser Leu Pro Pro Leu Pro Ser Pro Ala Pro  
1 5 10 15

Ala Leu Ala Pro Ala His Ser Leu Leu Gly Leu Leu Leu Gly Arg Met  
20 25 30

Ser Gly Ser Ser Leu Pro Ser Ala Leu Ala Leu Ser Leu Leu Leu Val  
35 40 45

Ser Gly Ser Leu Leu Pro Gly Pro Gly Ala Ala Gln Asn Val Arg Val  
50 55 60

Gln Ser Gly Gln Asp Gln  
65 70

<210> 364

<211> 56

<212> PRT

<213> Homo sapiens

<400> 364

Gly Thr Ser Lys Asp Cys Val Leu Tyr Ala Phe Leu Asp Pro Gly Met  
1 5 10 15

Ala Val Pro Leu Phe Leu Tyr Ile Phe Thr Leu Leu Pro Leu Leu Pro  
20 25 30

Phe Leu Leu Ser Leu Cys Phe Ser Pro Leu Thr Val Lys Arg Ser Ser  
35 40 45

Ser Ser Glu Ser Lys Ser Ser Leu  
50 55

Applicant's or agent's file reference number	PZ031PCT	International application	Unassigned
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**INDICATIONS RELATING TO A DEPOSITED MICROORGANISM**

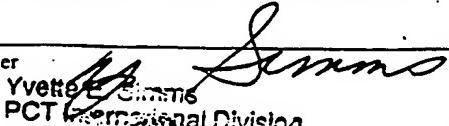
(PCT Rule 13bis)

REC'D 18 AUG 1999

A. The indications made below relate to the microorganism referred to in the description on page <u>260</u> line <u>N/A</u>		WIPO	PCT
B. IDENTIFICATION OF DEPOSIT		Further deposits are identified on an additional sheet <input type="checkbox"/>	
Name of depositary institution American Type Culture Collection			
Address of depositary institution ( <i>including postal code and country</i> ) 10801 University Boulevard Manassas, Virginia 20110-2209 United States of America			
Date of deposit July 27, 1998	Accession Number 203069		
C. ADDITIONAL INDICATIONS ( <i>leave blank if not applicable</i> )		This information is continued on an additional sheet <input type="checkbox"/>	
D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE ( <i>if the indications are not for all designated States</i> ) Europe In respect to those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC).			
E. SEPARATE FURNISHING OF INDICATIONS ( <i>leave blank if not applicable</i> ) The indications listed below will be submitted to the International Bureau later ( <i>specify the general nature of the indications e.g., "Accession Number of Deposit"</i> )			

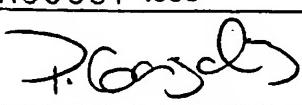
For receiving Office use only

This sheet was received with the international application

Authorized officer   
Yvette B. Climo  
PCT International Division

For International Bureau use only

This sheet was received by the International Bureau on:  
**18 AUGUST 1999**

Authorized officer 

## CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

## NORWAY

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

## AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

## FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

## UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

## DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

## SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

## NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

Applicant's or agent's file reference number	PZ031PCT	International application:	Unassigned
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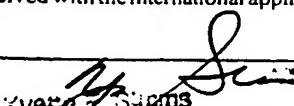
### INDICATIONS RELATING TO A DEPOSITED MICROORGANISM

(PCT Rule 13bis)

<b>A.</b> The indications made below relate to the microorganism referred to in the description on page <u>243</u> , line <u>N/A</u>			
<b>B. IDENTIFICATION OF DEPOSIT</b> <span style="float: right;"><input type="checkbox"/> Further deposits are identified on an additional sheet</span> Name of depositary institution American Type Culture Collection			
Address of depositary institution ( <i>including postal code and country</i> ) <u>10801 University Boulevard</u> <u>Manassas, Virginia 20110-2209</u> <u>United States of America</u>			
Date of deposit	June 11, 1998	Accession Number	209965
<b>C. ADDITIONAL INDICATIONS</b> ( <i>leave blank if not applicable</i> )		This information is continued on an additional sheet <input type="checkbox"/>	
<b>D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE</b> ( <i>if the indications are not for all designated States</i> )			
<b>Europe</b> In respect to those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC).			
<b>E. SEPARATE FURNISHING OF INDICATIONS</b> ( <i>leave blank if not applicable</i> )			
The indications listed below will be submitted to the International Bureau later ( <i>specify the general nature of the indications e.g., "Accession Number of Deposit"</i> )			

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This sheet was received with the international application

Authorized officer   
*Yves de Sharnis*  
 PCT International Division

For International Bureau use only

This sheet was received by the International Bureau on:

Authorized officer

## CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

## NORWAY

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

## AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

## FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

## UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

**DENMARK**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

**SWEDEN**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

**NETHERLANDS**

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

Applicant's or agent's file reference number	PZ031PCT	International application	Unassigned
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### INDICATIONS RELATING TO A DEPOSITED MICROORGANISM

(PCT Rule 13bis)

<b>A.</b> The indications made below relate to the microorganism referred to in the description on page <u>249</u> line <u>N/A</u>	
<b>B. IDENTIFICATION OF DEPOSIT</b>	
Name of depositary institution <u>American Type Culture Collection</u>  Address of depositary institution ( <i>including postal code and country</i> )  <u>10801 University Boulevard</u> <u>Manassas, Virginia 20110-2209</u> <u>United States of America</u>	
Date of deposit  <u>June 26, 1998</u>	Accession Number  <u>203027</u>
<b>C. ADDITIONAL INDICATIONS</b> ( <i>leave blank if not applicable</i> )      This information is continued on an additional sheet <input type="checkbox"/>	
<b>D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE</b> ( <i>if the indications are not for all designated States</i> )  <b>Europe</b> In respect to those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC).	
<b>E. SEPARATE FURNISHING OF INDICATIONS</b> ( <i>leave blank if not applicable</i> )  The indications listed below will be submitted to the International Bureau later ( <i>specify the general nature of the indications e.g., "Accession Number of Deposit"</i> )	

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<input checked="" type="checkbox"/> This sheet was received with the international application	
Authorized officer  <u>Yvette E. Sturms</u> PCT International Division	
For International Bureau use only	
<input type="checkbox"/> This sheet was received by the International Bureau on:	
Authorized officer	

## **CANADA**

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

## **NORWAY**

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

## **AUSTRALIA**

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

## **FINLAND**

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

## **UNITED KINGDOM**

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

## DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

## SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

## NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

Applicant's or agent's file reference number	PZ031PCT	International application	Unassigned
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## INDICATIONS RELATING TO A DEPOSITED MICROORGANISM

(PCT Rule 13bis)

<b>A.</b> The indications made below relate to the microorganism referred to in the description on page <u>253</u> , line <u>N/A</u>		
<b>B. IDENTIFICATION OF DEPOSIT</b>		Further deposits are identified on an additional sheet <input type="checkbox"/>
Name of depositary institution American Type Culture Collection		
Address of depositary institution ( <i>including postal code and country</i> )  10801 University Boulevard Manassas, Virginia 20110-2209 United States of America		
Date of deposit	Accession Number	
July 27, 1998	203071	
<b>C. ADDITIONAL INDICATIONS</b> ( <i>leave blank if not applicable</i> )		This information is continued on an additional sheet <input type="checkbox"/>
<b>D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE</b> ( <i>if the indications are not for all designated States</i> )  Europe In respect to those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC).		
<b>E. SEPARATE FURNISHING OF INDICATIONS</b> ( <i>leave blank if not applicable</i> )  The indications listed below will be submitted to the International Bureau later ( <i>specify the general nature of the indications e.g., "Accession Number of Deposit"</i> )		

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Yvette E. Skinner  
PCT International Division

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## CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

## NORWAY

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## AUSTRALIA

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## FINLAND

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## UNITED KINGDOM

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**DENMARK**

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**NETHERLANDS**

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Applicant's or agent's file reference number	PZ031PCT	International application
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### INDICATIONS RELATING TO A DEPOSITED MICROORGANISM

(PCT Rule 13bis)

<b>A.</b> The indications made below relate to the microorganism referred to in the description on page <u>259</u> line <u>N/A</u>		
<b>B. IDENTIFICATION OF DEPOSIT</b> <span style="float: right;"><input type="checkbox"/></span> Name of depositary institution <u>American Type Culture Collection</u>		
Address of depositary institution ( <i>including postal code and country</i> ) <u>10801 University Boulevard</u> <u>Manassas, Virginia 20110-2209</u> <u>United States of America</u>		
Date of deposit	Accession Number	
<u>July 27, 1998</u>	<u>203070</u>	
<b>C. ADDITIONAL INDICATIONS</b> ( <i>leave blank if not applicable</i> ) <span style="float: right;"><input type="checkbox"/></span> This information is continued on an additional sheet <span style="float: right;"><input type="checkbox"/></span>		
<b>D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE</b> ( <i>if the indications are not for all designated States</i> ) <u>Europe</u> In respect to those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC).		
<b>E. SEPARATE FURNISHING OF INDICATIONS</b> ( <i>leave blank if not applicable</i> ) The indications listed below will be submitted to the International Bureau later ( <i>specify the general nature of the indications e.g. "Accession Number of Deposit"</i> )		
————— For receiving Office use only ————— <input checked="" type="checkbox"/> This sheet was received with the international application		
————— For International Bureau use only ————— <input type="checkbox"/> This sheet was received by the International Bureau on:		
Authorized officer  <u>Yvette E. Gimms</u> <u>PCT International Division</u>		
Authorized officer		

## **CANADA**

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**DENMARK**

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**SWEDEN**

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**NETHERLANDS**

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/17130

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :Please See Extra Sheet.

US CL :Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.1, 23.5; 435/69.1, 320.1, 252.3, 325, 6, 7.1; 530/350, 300, 387.1; 514/2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, DIALOG - Biotech Files

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JACOBS, K. A. et al. A Genetic Selection For Isolating cDNAs Encoding Secreted Proteins. Gene. 1997, Vol. 198, pages 289-296, see entire document.	1-23

 Further documents are listed in the continuation of Box C.  See patent family annex.

• Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*B* earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means		
*P* document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

05 OCTOBER 1999

Date of mailing of the international search report

21 OCT 1999

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231Authorized officer  
  
ELIZABETH C. KEMMERER

Facsimile No. (703) 305-3230

Telephone No. (703) 308-0196

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/17130

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: 1-23 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  

Please See Extra Sheet.
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/17130

A. CLASSIFICATION OF SUBJECT MATTER:

IPC (6):

C12N 1/21, 5/10, 15/11, 15/12, 15/63; A61K 38/16, 38/17; C07K 14/00, 14/435, 16/00; G01N 33/50

A. CLASSIFICATION OF SUBJECT MATTER:

US CL :

536/23.1, 23.5; 435/69.1, 320.1, 252.3, 325, 6, 7.1; 530/350, 300, 387.1; 514/2

BOX I. OBSERVATIONS WHERE CLAIMS WERE FOUND UNSEARCHABLE

2. Where no meaningful search could be carried out, specifically:

All of the claims were unsearchable to the extent that they require reference to sequences from the sequence listing or an ATCC deposit. However, the specific sequence and deposit numbers were replaced in the claims with generic designators X, Y and Z. Therefore, no meaningful search of the sequences or deposits per se can be carried out by this Authority. The subject matter of the claims has been searched only to the extent possible with reference to the balance of the description.